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A study of the sex role attitudes of newly qualified and experienced teachers.

Laura Elizabeth Marks
University of Windsor

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**LA THÈSE A ÉTÉ
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A STUDY OF THE SEX-ROLE ATTITUDES
OF NEWLY QUALIFIED AND EXPERIENCED TEACHERS

by

LAURA ELIZABETH MARKS

A thesis
submitted to the Faculty of Graduate
Studies through the Faculty of Education
in Partial Fulfillment of the requirements
for the Degree of Master of Education at
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1984



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ABSTRACT

The aim of this study was to examine teacher characteristics in the hope of identifying those teachers who are likely to hold stereotypic sex role attitudes toward their students. Based on the assumption that negative attitudes toward girls by teachers have an adverse effect on both the academic achievement and the self esteem of girls, this study intended to ascertain whether newly qualified teachers hold less rigid attitudes toward sex role stereotyping than do their experienced colleagues.

The modified SSRI inventory was used (Scott and Brantley, 1983), to measure the sex role attitudes and the level of knowledge about the area, of 346 subjects, both experienced teachers and students completing a one year B.Ed. degree at a University in Ontario. It was found that the students were no less, or more, likely to hold stereotyped views than the practitioners. Overall, the women held less sexist attitudes than the men. It was also found that the older teachers (aged over 30 years) were significantly less sexist than the younger subjects, and, similarly, those who had been teaching over 10 years had a more positive attitude to sex role stereotyping than did the less experienced practitioners and students. Elementary school teachers and secondary school teachers did not differ from one another but individuals who had attended womens' studies classes or womens' support groups had a more positive attitude than

those who had not. The teachers from a board which had implemented an affirmative action campaign for the past three years, scored no differently from the other teachers.

The need to try to change the attitudes of young teachers and male teachers is emphasized. Ways in which this may be achieved are also discussed.

LIST OF APPENDICES

APPENDIX 1
THE MODIFIED SSRI

APPENDIX 2
THE DEMOGRAPHIC DATA QUESTIONNAIRE

CHAPTER 1

INTRODUCTION

DEFINITIONS

Sexism: "a process by which certain kinds of phenomena and behaviour are attributed to a particular sex" (Deem, 1978, p.23.) Examples of this might be associating crying and washing up with females but playing football and repairing cars with males. There is no intrinsic reason why these activities should be classified as male or female and they are therefore sexist comments or associations.

Sex-Role Stereotyping: The process by which individuals are socialized into thinking or acting in a way appropriate to their sex. Therefore, in many cases, the personal desires or interests of an individual are subordinated to the demands of convention on the grounds of sex alone.

LITERATURE REVIEW

In our society, both sexism and sex role stereotyping play an important role in the socialization of children. It seems that by the time children reach school age, they are already well aware of distinctions between male and female roles. Deem (1978) pointed out that students realize that society values the male role and men more than it values the female role and women. By the age of five or six, the activities, attitudes and even the

skills of the two sexes have diversified. The question to be asked here concerns the role of the teacher in this socialization process and the subsequent effect the teacher's contribution will have on the childrens' development.

That teachers treat students differently on the basis of sex is clear.

"Sex role stereotyping is very much a part of the elementary school curriculum. Certain activities are being limited, not by a child's ability, but by gender. A differential system of reward and punishment is being applied on the basis of sex. Teachers may be unconsciously limiting the learning experiences of children by restricting the range of activities in which they may participate. Children may be learning inappropriate or outdated roles which will have little relevance to the society of their adulthood. By continuing to teach traditional sex roles we may be educating children for a society which exists for shrinking numbers of people." (Sheridan, 1978, p. 22).

A great deal of time is spent by educational theorists and practitioners arguing about the relative contributions to sex differences made by social and biological factors. The debate revolves around the notion that if all the perceived sex differences are due to genetic or biological differences then little can be done about them, they are immutable and permanent. If, on the other hand, all the differences are due to environmental or social factors, a great deal could be done to reduce them. However, the debate is, to a large extent, futile. As Lambert (1978) pointed out, it is extremely difficult to separate these two causes of sex differences and there is no real reason why enormous importance should be attached to biological differences. It is far better to focus our attention on ways in which to achieve greater social

equality. "If a particular sex difference is incompatible with important aspects of social equality", Lambert argued, "we should argue for compensatory measures, independent of biological causation." (p. 117)

Schools and teachers play a major role in the socialization process of children. It is to be hoped that our teachers are attempting to provide equal opportunities for girls and boys, thus allowing the children's future to be determined solely by their individual abilities and inclinations. Similarly, it is to be hoped that our teachers and schools are not perpetuating outdated sex roles. The concern, however, is that teachers are still treating boys and girls in different ways and teaching them to expect, and therefore possibly achieve, different goals in life. This study is concerned with the attitudinal and behavioural differences seen in teachers with regard to their male and female pupils and the effect that this has, especially on the girls. In a supposedly liberated and progressive society, it is to be hoped that all teachers, but particularly young, enthusiastic teachers, no longer bound by sexist notions, will not differentiate between the sexes along purely stereotypic lines.

The discussion will proceed as follows:

- 1 - The educational system and some of the ways in which sex roles are maintained through that system will be examined.
- 2 - Attention will then turn move specifically to identifying ways in which teachers differentiate between the sexes and their different attitudinal orientations to girls and boys.

- 3 - The effects on girls of the teachers' tendency to stereotype will be examined next, both those caused by expectations of lower academic achievement by girls and those on girls' self concepts.
- 4 - Finally an attempt will be made to identify certain characteristics in teachers which make them more or less inclined to hold strongly stereotypic sex role attitudes.

The research focus of this study was the age and length of service of teachers in an attempt to ascertain whether, as one might hope, newly qualified teachers are more liberated in their attitudes to sex role stereotyping than are their older, and, presumably more conservative, colleagues.

Education and Women

Aphra Behn is a little known figure today. However three hundred years ago, she was demanding autonomy for women and full educational rights. Ms. Behn was one of the first to protest about male control of education and the way in which this control has been used over the centuries to ensure superiority for men. She realized that girls need not only to be taught the same subjects in schools as boys but that women must also be allowed to participate in the control of education, to jointly decide what should be learned and what values should be encouraged, with male administrators. Indeed, the very fact that Aphra Behn is unknown to many of us, illustrates the low importance given to women's rights by today's educational system. Dale Spender (1982) discussed the case of Ms. Behn. Spender asserted that women have been deprived of their knowledge

heritage and learning by a school system which teaches that all that is of value in learning comes from, and concerns, men. Traditionally, Spender pointed out, women were raised to be attractive for, and useful to men. Men, for their part, ensured that women were not highly educated whereby they might protest about their lowly position or even revolt. Even today it may be that young women are told that by entering higher education and the professions, they are speeding the decline of the family and of morality and that they are becoming defeminized. Women are not, however, told that what they are actually doing is reducing the privileges held dear, for many years, by men. Although educational opportunities have widened considerably in recent years, men still largely control the school system both in terms of positions of authority and in curricula development.

Education plays an important role in forming or maintaining the culture in a society (Deem, 1978). In a capitalist, industrial, westernized society, there is a clear link between education and the labour force. Deem took Spender's case one logical step further and argues that where schools import ideas about jobs and careers which are sexist, this ensures the continuation of the sexual division of labour. If, as is the case in our society, women are expected primarily to be wives and mothers, the school must be playing some part in the continuation of this status quo.

Educational institutions have always been involved in the socialization of children. This function was previously performed

largely by parents but with the increase in broken homes, working mothers and the move away from large stable families, schools have assumed more of the responsibility. Socialization includes the passing on of attitudes and beliefs and as Guttentag and Bray commented (1977), "Schools reflect the values of society at large and transfer these standards of behaviour to children." (p. 395) Guttentag and Bray asserted that sexism is such in the educational system that boys emerge believing that they are competent for full time careers while girls believe themselves suited, to a large extent, to no more than full time home making. They go on to suggest that four factors in schools enhance sex stereotyping:

(a) Men run the system while women merely work in it. In general, men administrate, men are principals and men sit on the Boards. Men are seen by children to occupy the most prestigious roles. As this imbalance in schools is merely a reflection of the imbalance in society in general, girls are taught their place early. For example, in 1982, 87.5% of all elementary school principals in Ontario were male, while 71.6% of the teachers were female. In the same year, an enormous 96.1% of secondary school principals in the Province were male. (Ontario Ministry of Education, 1982).

(b) School and classroom activities, in many cases, are segregated according to sex. For example, there may be separate sports, games, and, even subject areas for girls and boys. Until recently, girls often had to wear

dressess or skirts and this instantly restricted their ability to run, climb and play. Girls are often encouraged to serve or cook food for class parties or parents' visits, while boys move furniture. The sexes are frequently segregated for sex education and hygiene, thus further reducing the chances of easy communication between girls and boys.

(c) A third important way in which the school transmits social values and attitudes is through the content of textbooks, particularly in early readers. Frasher and Walker (1974) examined the roles, relationships, activities and relative importance assigned to male and female characters in stories in four basal reading series used in The United States. They found:

1. Adult males were seen in occupations outside the home four times as often as females.
2. The occupations shown for men were far more numerous and varied than those for women. One half of the women working were teachers.
3. Fathers were shown as family leader, problem solver, source of information, etc. Mothers were shown as home makers, shoppers and nurturers, concerned almost exclusively with the children's physical well being.
4. Boys were depicted indulging in far more noisy activities than quiet ones. The contrary was true for girls.
5. Girls were shown much more frequently needing

help and protection, giving up easily, incompetent, timid, docile and dependent. Boys had leadership qualities, independence, initiative, perseverance and problem solving ability.

- (6) Boys were almost invariably shown as the oldest child in the family.

In 1975, the Status of Women Committee and the Directors of the Federation of Woman Teachers' Association of Ontario, examined all early reading series approved by the Ontario Ministry of Education. Amongst other headings, not relevant here, the readers were examined for sex role stereotyping in two ways. These were:-

- (1) the representation of men and women, boys and girls in the primary, secondary and background positions in fictional and non-fictional stories.
- (2) Character analysis as determined by his/her self-actualization level, moral level, range of emotions, occupation (if adult) and behaviour in the story.

The evaluators found that no series was able to meet the criterion of balance in: (a) the numbers of males and females represented; (b) self-actualization and moral levels of males and females; and (c) breadth of activities and occupations. (Federation of Women Teachers' Association of Ontario, 1975).

In 1983, another Ontario Ministry of Education publication

stressed that both the materials and methods in our schools should reflect a society in which men and women have made, and are making, a variety of contributions based on their human attributes (Ontario Ministry of Education, 1983).

The readers may be discriminatory, but, as Rupley et al (1981) pointed out:

"Reading series are merely the tools of the educational process; their value resides in how effectively they are employed. Teachers are responsible for what goes on in the classroom." (p. 790).

(d) The teachers themselves are of enormous importance and make up the fourth of Guttentag and Bray's factors enhancing sex stereotyping in schools. Children are differentially socialized through the attitudes and behaviour of their teachers. It is this factor which forms the basis of the following discussion and study.

Differential Teacher Behaviour Towards Girls and Boys

The reasons for studying teacher attitudes toward girls and boys are important here. Firstly, teacher attitudes must, to a large degree, affect teacher behaviour and, secondly, teacher attitudes and behaviours must affect the performance and behaviour of the students both in the academic and the non academic domains. A study of the differential ways in which teachers treat girls and boys and of the teachers' attitudes toward the two sexes is therefore of central interest and will

be followed by an examination of some of the effects of these behaviours and attitudes.

As Dale Spender (1982) pointed out: "In a society where it is normal for males to receive preferential treatment, it is also normal to provide preferential treatment in school." (p. 60) Indeed, many studies have shown that boys receive more attention than girls in mixed classrooms (e.g. Sears and Feldman, 1974). Spender continued:

"Historically men have interrupted and silenced women and have catered for the interests of men ... this same process continues today in most of the classrooms... where, in mixed sex classes, males are the authority figures, males do the talking and lessons are designed to cater for males' interests because... if males do not get what they want, they are likely to make trouble." (p. 54)

Although most teachers would deny that they give more attention to boys, students themselves perceive the discrepancy. In England, in 1981, Michelle Stanworth found that school students thought that boys received more teacher attention, boys predominated in class discussion, were praised and encouraged by the teacher and were favoured by the teachers. Fully aware of this discrepancy, Spender tried to teach a class more equally, but even she spent only 38% of her time interacting with female students and a minimum of 58% of her time was spent with the boys and under these circumstances the boys complained that they were being ignored. (Spender, 1982).

Spender's own research shows a clear double standard between acceptable behaviour for boys and for girls. When boys ask questions, protest or challenge, they are rewarded and respected. Girls are punished for the same behaviour - it is considered unladylike. Teachers even learn the names of their male students faster than those of the girls.

"For many girls, educational experience reinforces the message provided by society, that they are indeed invisible." Barnes (1976) pointed out that if teachers believe that girls are less exciting and less interesting, they will provide them with less stimulating and challenging materials and assignments and they will therefore not be fully stretched or developed. From the earliest years in elementary schools, teachers prefer to teach boys and seem them as more fun than girls. (Clarricoates, 1978). The differential treatment of girls and boys by teachers and schools is clear. Rosemary Deem (1978) identified a variety of ways in which this treatment makes girls feel not only different from, but inferior, to, boys, including: boys' names tending to precede those of girls on the register, girls having to wear restricting skirts, single sexed playgrounds, outings and physical education activities with girls receiving secondary treatment and facilities to boys.

A recent American study by Simpson and Erickson (1983) again confirmed that teachers pay more attention to boys. Sixteen first grade teachers' verbal and non verbal behaviour was monitored and it was found that they gave more verbal praise,

verbal criticism, verbal neutral behaviour, non verbal praise and non verbal neutral behaviour to boys than to girls. School counsellors encourage girls and boys into different subject and career choices with girls steered towards the caring and helping professions and boys towards the high status, highly paid areas. (Chafetz, 1978). This practice is defended on the grounds that students must face reality which tends to involve child care and housework for girls, but careers and financial responsibility for boys. It may be noted here that the support of the status quo by teachers is hardly likely to promote equality of opportunity for girls in tomorrow's world. There is an abundance of material on this subject which will not be pursued here. However, it is apparent from these examples that teachers treat girls and boys differently. Their attitudes to their students is also affected by the students' sex and this will now be examined.

Differential Teacher Attitudes to Girls and boys

Teachers appear to hold differing attitudes towards their male and female pupils. For example,

"Although much of the attention boys receive is negative, the fact remains that girls are rewarded for their passivity and 'goodness' and largely ignored most of the time, thus reinforcing female 'invisibility'." (Chafetz, 1973, p. 91)

Walum (1977,) found that teachers describe "good female students" as "calm", "co-operative", "dependable", "obliging", "thorough" and "Mannerly", while "good male students" were described as "active", "aggressive", "assertive", "independent"

and "curious". Male students were also perceived as greater behaviour problems and subsequently in need of more attention. However, Schneider and Coutts (1979) surveyed 296 teachers and while the teachers preferred boys, they saw typically female traits as being more acceptable in school. It may be then, that female characteristics are valued in school but male ones are valued by society at large.

Students themselves, even very young ones, share their teachers' tendency to differentiate between males and females. Sheridan (1978) asked elementary school students whether given classroom activities were performed by boys or girls and the students responded in a stereotyped manner, an effect which increased with grade level. Activities involving mechanical or strength ability were, then, perceived as male while those in the academic or domestic areas were seen as female. The students had obviously been exposed to differential treatment by their teachers and had learned to expect it.

Three more studies of teacher attitudes are relevant here. The first is a study by Galloway in 1973, cited in Delamont (1980). Female student teachers in Edinburgh were interviewed. These potential teachers were found to hold extremely conventional views of marriage and motherhood based on a belief that women are inferior in intellect and achievement due to biological differences. It was noted that women who believe that the sexes are substantially different are likely to treat their pupils accordingly. It seems highly unlikely that women teachers holding

views such as these will instigate ideas about non sexist teaching methods and materials. Ricks and Pyke (1973) interviewed thirty male and thirty female teachers in Ontario and found traditional attitudes and a resistance to non sexist innovations. Seventy-three per cent of their sample believed that girls and boys behave differently and about 50% of them said that not only do the students expect to be treated differently but that teachers have neither the right nor the responsibility to influence their attitudes to sex roles. Another Canadian study (Eichler, 1980) looked at the attitudes of 100 male and 100 female teachers in Toronto. While all the teachers considered themselves committed to the notion of equality, many still believed differentiation to be appropriate.

Eichler found sex differences between the teachers with male teachers more likely to differentiate between girls and boys. Twenty-five per cent of the men thought this appropriate as girls have different tasks in life from boys. Male teachers were less aware of inequalities between the sexes and less committed to equality of opportunity. Male teachers were less receptive to females in authority and attributed fewer leadership characteristics to women than did female teachers. Twenty-five per cent of all the teachers assumed that women have lower achievement orientation in their work than men. Male teachers then, seemed even less committed to sexual equality than female teachers, and, as Eichler concluded: "It can be assumed that such differential attitudes transmit themselves to students."(p.11)

Teacher Expectations and Student Performance

The effect of these differences in attitude and behaviour toward girls and boys by teachers may be profound. The effects may be seen in terms of the academic development and in terms of personality development. It will be shown here that girls are affected detrimentally in both of these ways. There is a great deal of evidence that by adolescence, girls fall behind boys in academic achievement, especially in spatial visualization abilities (e.g. Levine and Ornstein, 1983). It could be that these differences may be attributed to a biological difference but much of the achievement discrepancy is likely to be due to differing sex role patterns. It may well be that women have lower mathematical achievement largely because teachers, parents and peers expect less from them than they do from boys or because socialization makes girls fearful of success.

The now classic study by Rosenthal and Jacobson (1968) drew attention to a possible relationship between teacher expectations and student performance. Many studies since have examined this relationship, with varied results.

Clifton (1981) showed that students who perceive positive evaluations from their teachers have greater success than those who perceive negative ones. Clifton also demonstrated that two factors which may account for this relationship between expectations and performance are ethnicity and sex. In a recent

paper, Arganbright (1983) emphasized the importance of teacher expectations as they influence the motivation, measured ability and achievement of students. Teachers have expectations about students' behaviours and abilities, Arganbright continued, but these may well have been acquired through misinformation and misconceptions. Teacher expectations are, necessarily, a major factor in the educational climate of the school.

"If teachers, principals and other members of the school social system hold high expectations for students, they are likely to create a program that is consistent with those expectations and in which students learn what is expected. If, on the other hand, some students are expected to learn less than others, they will tend to conform to those expectations." (Lazotte et al, 1980, p. 25-26).

Braun, Neilsen and Dykstra (1975) supported this view. They pointed out that teacher behaviour and interactions with the students will influence learning. The way in which the teacher interacts, however, is based on the teachers' beliefs and their expectations for individuals or groups. Therefore, the teachers' expectations ultimately affect how he or she will communicate with the students and this, in turn, affects the child's feelings and responses. Braun et al, point out that not only will the teacher directly affect the child's academic performance in this way, but he, or she will also affect the child's self esteem, self expectations, and ultimately, performance.

The way in which the expectancy transfers itself to the students from the teacher is also worthy of consideration. Brophy and Good suggested in 1970 that the process can be

divided into two phases. The formation of the expectancy by the teacher and the communication of the expectation to the students including the subsequent effects this may have on the students' behaviour. Darley and Fazio (1980) developed a model to explain the process by which teacher expectations may affect student performance. They postulated the following steps.

- 1 - The teacher develops a set of expectations about the student.
- 2 - These expectations influence the teacher's interactions with the student.
- 3 - The student interprets the teacher's actions and comes to expect similar treatment in the future from the teacher.
- 4 - The student responds to the teacher's behaviour. If the teacher's expectations are acceptable to the student, the student will respond in a way which will conform to the teacher's expectations.
- 5 - The teacher interprets the student's response. The teacher is likely to interpret the response as a confirmation of his or her expectations and many responses failing to confirm those expectations may be required before the teacher will alter entrenched expectations.
- 6 - The student interprets his or her own responses to the teacher. If the student has understood the teacher's expectation and has responded in a way to confirm that expectation, the student's self image and future behaviour may change in the direction implied by the teacher's expectations.

There are those, however, who do not accept the so called 'self fulfilling prophesy', or the 'Pygmalion effect", that is they do not accept that the expectations of a teacher are met by students. Alpert (1975) looked at teachers of low ability reading groups. The teachers were advised to increase their "good" behaviours, for example, to give more reading time, to have smaller groups and to give more positive attention but the performance of the children did not increase as had been expected.

Alpert claimed that the clear relationship between teacher expectation and student performance had not been established. However, Alpert's study modified teacher behaviour, not teacher expectations, and the Pygmalion effect may work in a more subtle way than in this overt manipulation of teacher actions.

Brophy (1983) in an extensive review of the literature concerning the self fulfilling prophesy, suggested that the effect is small. However, those expectation effects on student achievement that do occur tend to be the undesirable limiting effects of lowered expectations or "Golem" effects rather than the desirable, stimulating effects of heightened expectations or "Galatea" effects. It is this "Golem" effect which is of interest as this limiting effect on the academic performance of girls due to lowered teacher expectations is under scrutiny here. Attention will now turn specifically to the effect on girls' academic performance caused by teachers' sex role expectations.

Teachers' Sex Role Expectations and Students' Academic Performance

There is substantial evidence to suggest that sex role stereotyping by teachers adversely affects the achievement of girls and, therefore, their eventual career direction and success. As Laws (1979) pointed out, achievement itself is becoming sex typed in elementary schools. Achievement is expected of males and positively evaluated in them, but it is not expected in girls and may be negatively sanctioned in them. Indeed, Laws suggested non achievement is expected of girls.

Weitz (1977) wrote:

"The teacher can of course directly transmit sex role expectations by specifically indicating his or her feelings about appropriate behaviours. For example, in presenting material on occupations, especially in the context of guidance counselling, very definitely sex-typed expectations can be transmitted." (p. 85)

Teachers, Weitz continued, often specifically punish "out of sex role" behaviour and support "in role" behaviour although this is not always done in overt and obvious ways. Guttentag and Bray (1976) attributed the declining academic performance in girls in adolescence to peer pressure which emphasizes social rather than academic skills. Boys, on the other hand, receive constant and consistent feedback in the classroom which helps them to establish and evaluate their abilities. In adolescence they also receive strong encouragement from teachers to achieve. Guttentag and Bray suggest that teachers unknowingly support these patterns in their students.

One study by Benz, Pfeiffer and Newman (1981) is particularly relevant here. Benz et al were concerned by the apparent decline in girls' achievement over grade level as compared to achievement increases over grade level in boys. They therefore tried to determine whether teacher expectations might play a part in student achievement. Teachers were given information about students (who actually did not exist) and were asked to rate them according to certain characteristics. These characteristics had been chosen for their tendency to reflect a male, female or neutral stereotype. The information given to the teacher included notes about the 'student's

achievement, sex and grade. It was found that teachers classified high achieving females as having androgynous characteristics while high achieving males were classified as male and androgynous as defined using the Bem Sex Role Inventory (1974).

Benz et al found that high achievers are more likely to be considered masculine by teachers than low achievers. High achievement was negatively related to teacher's feminine sex role expectations. The female sex role was shown to be clearly related to low achievement by teachers, regardless of grade level or the teacher's sex. Not only, then, do teachers expect poorer performance from girls, but these expectations seem to be passed on to the students who perform accordingly.

The Effect on Students' Self Concept of Teachers' Sex Role

Not only do teachers' sex role attitudes affect students' performance but they also appear to damage girls' self esteem and this may have extremely damaging longterm implications. To assume that teachers and schools play a large role in developing sex role identities in their students does not seem unreasonable in light of the discussion so far. Lamke (1982) studied sex role orientation and self esteem in 49 female and 70 male, 12 to 15 year olds. It was shown that masculinity in both males and females is related to high self esteem where several measures of self esteem were employed. Both masculine and androgynous individuals had higher levels of self esteem than those students with feminine or undifferentiated sex role orientation.

Another earlier study by Sears and Feldman (1966) supports the view that teachers' attitudes can damage girls' self concept. Sears and Feldman reviewed several studies which examined teachers' interactions with girls and boys. They concluded that teachers' interact with boys more than girls in all of the four ways observed: instructional, listening to the child, approval and disapproval. They proposed that this behaviour results in an increase in the independent behaviour of males as they are praised, listened to, taught and disapproved of more actively by the teacher than are girls. Girls, on the other hand, may experience a lowering of self concept as they receive less attention and, it seems, are criticized for their lack of knowledge. Teachers, then, may be unconsciously damaging the self concepts and lowering the self esteem of their female pupils by their differential attitudes toward the two sexes. Not all teachers will have the same tendency to stereotype their students according to sex roles. Two main factors which may affect this tendency are the age and the sex of the teacher.

Teacher Characteristics and Sex Role Attitudes

Evidence has already been discussed supporting the view that Canadian male teachers are slightly more likely to hold stereotypic sex role attitudes than female teachers. (Eichler, 1980). This view is supported by Delamont (1980) in her studies in England. She suggested that male teachers tend to come from lower class origins than female teachers who are, typically, from the middle classes. As such, Delamont postulated

that male teachers are likely to be more traditional and, therefore, to hold traditional sex role beliefs. This view is not, however, shared by Good, Skies and Brophy (1973) in a discussion of teacher behaviour rather than attitude. They asserted that the sex of the teacher does not change the stereotypical behaviour of teachers toward their male and female students. Brophy and Good (1974) reviewed the literature in the field and reasserted that the sex of the teacher is not relevant factor in explaining sex differences in student achievement. Guttentag and Bray (1977) shared this opinion claiming:

"The same kind of differences recorded as repeated by occurring in classes taught by females also appear in classes taught by males." (p. 404)

"Having a male or female teacher makes little difference".

"The problem lies with the teacher's own role conception." (Guttentag and Bray, 1977, p. 408).

Feminist beliefs may be important if sex role conceptions are indeed a factor in differential student achievement. Funk (1978) sampled 152 female elementary school teachers. The teachers' feminist beliefs were examined as well as their classroom assigning of tasks to male and female students. It was found that among these female teachers, younger teachers were more in agreement with feminist beliefs than were older teachers. There was also a small positive relationship between feminist orientation and classroom job assignments. This would imply a predictable relationship between teacher attitudes and teacher behaviour in the field of sex role stereotyping. The

findings also suggest that age may be an important factor in teachers' sex role attitudes. Moore and Rosenthal (1980) share the opinion that age affects sex role attitudes but their sample did not consist of teachers. Moore and Rosenthal administered the Bem Sex Role Inventory to 100 male and female 17 to 21 year olds. They found that older women were more likely to be sextyped along traditional lines than younger women. Between the male groups, no difference was found. It appears then, that older women hold more traditional beliefs in this area than younger women but men do not appear to follow the same pattern.

Newly Qualified Teachers' Sex Role Attitudes

Many newly qualified teachers have high ideals and would probably like to try to arrest the sex role stereotyping which occurs in schools today. As Grace (1978) suggested, these young teachers may feel themselves to be "messengers essentially of human liberation and of the potentially transforming effects of critical consciousness." (p. 63). However, their students and their students' parents, not to mention other teachers, are likely to interpret their liberal ideas as being merely soft. These radical teachers with progressive ideas therefore face great contradictions, a type of reality shock when they enter the schools.

This reality shock has been studied in England by Hanson and Hetherington (1976) who traced the careers of 16 new teachers who qualified between 1970 and 1973. The teachers were followed into the schools to see how their attitudes and behaviours were

altered by their colleagues and pupils. It seemed that current school practices were more influential in shaping these teachers' professional development than their training and education. The conservative, traditional influence of the older teachers was very apparent and the pupils themselves also encouraged new teachers to follow traditional and familiar patterns rather than initiating new ones.

Delamont (1980) suggested that parents and other teachers in England actively discourage radical or progressive new teachers and she stated:

"It seems likely that any teachers who hold "progressive" ideas about gender roles would find these as untenable in schools as other liberatarian notions." (P. 80)

Staffroom conversations, Delamont continued, also reveal the negative attitude teachers have toward attempts at reform by new members of staff. She suggested that these teachers are ridiculed and denigrated in the staffroom and concluded:

"Overall, therefore, I am arguing that the teacher who wanted to change the ways in which schools structure sex roles for staff and pupils is liable to suffer the same reality shock as teachers with other non traditional ideas." (p. 82)

The ways in which teachers differentiate between their male and female pupils has been discussed as has the detrimental effect these behavioural and attitudinal differences may have on female pupils. Certain teacher characteristics have been related to an increased or decreased tendency to hold stereotypic sex role attitudes.

In the mid 1980's it is to be hoped that young graduate teachers are liberal minded and disinclined to sexist attitudes

toward their students. As such, this study aims to examine the sex role attitudes of newly qualified teachers graduating from a faculty of education. Their attitudes will be compared to those of their more experienced colleagues who have, presumably, been progressively socialized into the school system.

CHAPTER 2

METHODOLOGY

The Hypotheses

The following hypotheses were tested in this study:

1. The students will score higher on the modified SSRI than the experienced teachers:-

It was expected that the less socialized student teachers would be less prone to stereotyping along sexist lines than the older teachers. It was assumed that the experience of teaching would make individuals more likely to stereotype than those who had not yet taught. A higher score for the students would show more positive attitudes and greater knowledge about the field than those for the practising teachers.

2. Younger subjects will score higher on the modified SSRI than older ones:-

It was assumed that younger subjects would be more progressive in their attitudes and more knowledgeable about sex role stereotyping than older subjects. As such, a higher score on the modified SSRI was predicted.

3. As the number of years of teaching increases, so scores on the modified SSRI will decrease:-

It was thought that the teaching experience itself might cause an increase in the tendency to stereotype along sexist

lines. As such, it was predicted that those teachers who had taught for many years would have poorer attitudes than those new to teaching or those who had not yet begun to teach.

4. Women will score higher on the modified SSRI than men:-

It was thought that women would be more aware of the whole problem of sex role stereotyping, would have a more positive attitude towards it and would be more knowledgeable in the field than men.

5. There will be no difference in the modified SSRI scores for elementary and secondary school teachers:-

While no difference is predicted and no justification for a difference can be found, it is thought that elementary school teachers may tend to be more rigid in their views and more inclined to stereotype than secondary school teachers.

6. Individuals who have been members of women's groups or attended women's studies classes will score higher on the modified SSRI than those who have not:-

This was based on the assumption that anyone who was sufficiently aware of the issues of sexism or sex role stereotyping to attend support sessions or study groups would have a positive attitude toward the issues. Additionally, such individuals would have increased their awareness and knowledge at the meetings or study groups.

7. Teachers employed by The X Education Board where an Affirmative Action program was instigated will score higher on the modified SSRI than the other subjects.

This research aimed to ascertain whether an Affirmative Action Campaign for women in the Board had been effective or not in promoting a positive attitude toward women.

The Instrument (Modified SSRI)

Several instruments have been constructed in recent years to assess attitudes about sex role stereotyping and sexism in general. Bem (1974) developed an inventory that treated masculinity and femininity as two independent dimensions allowing for an individual to be characterized as masculine, feminine or androgynous. Her findings indicated that the concept of psychological androgyny is a reliable one and that there are highly sex typed standards of behaviour for men and women.

Inventories for teachers tend to tap sex stereotyped behaviour rather than attitudes. Such measures were not used in the present study as half of the subjects had not yet taught.

The Scott Sex Role Inventory (SSRI) was developed in 1983 by J. Scott and J. Brantley in North Carolina. They attempted to develop a technically sound instrument which could be used for measuring a teacher's knowledge of and attitude toward sex role stereotyping. An attempt was made,

in the construction, to draw upon different areas of the field in order that the test would yield several separate subtest scores. These areas were:

1. Student/teacher relationships.
2. Education and curriculum.
3. Employment and adult roles.
4. Physical and behavioural characteristics.
5. Child rearing.
6. Knowledge about research in the area of sexism.

The 150 items originally selected were, eventually, through a process of standardization, reduced to 37. Half the items were stated positively and half were stated negatively. Factor analysis was undertaken and seven factors were yielded. These were:

Factor 1 - Conduct and Behaviour Characteristics.

This factor appeared to be a combination of student/teacher relationships and behavioural characteristics.

Factor 2 - Roles and Responsibilities.

Factor 3 - Dominance-Submissiveness.

Factor 4 - Opportunity and Authority. This factor involved role expectations for men and women.

Factor 5 - Knowledge. This consisted of the 17 items which measured knowledge about the field.

Factor 6 - Marital choice. There was just one item in this category.

Factor 7 - Play. Again, there was just one item in this category.

Further analysis of the subsets did not, however, support a formal subtest division. The only valid subsection was the attitude/knowledge division. As such, the subtests were not examined individually in the present study. It would have been possible to obtain separate knowledge and attitude scores, but this distinction was not utilized. This was because although the distinction was valid, both the knowledge and the attitude scores correlated highly with the total score. As such, the score breakdown was not essential. It should also be noted that such a breakdown was not the main focus of this study. As such, a total attitude/knowledge score was calculated and used throughout.

Two items from the original 20 item attitude section were replaced in this study. The first read: "Girls as well as boys should have a choice about their marital status." This question seemed to need clarification and was therefore replaced by another question. The new item was taken from the Attitude Toward Women Scale: Short Form (Panko 1977) and read: "A woman should be as free as a man to propose marriage." It was judged to investigate the area of marital choice but to be more specific.

A second item was replaced as it seemed highly ambiguous in its meaning. This item read: "It's important that women by more personal than men in their orientation toward life." The meaning of the word 'personal' seemed very unclear. As such, the item was replaced. The item had been taken from the Roles and Responsibilities subset. It was therefore replaced

by a similar item. The new item was taken from the Index of Sex Role Orientation (Dreye, Woods and James, 1981). They too had divided their questionnaire into subtests and the subtests from which this item was chosen had been labelled "male-female division of responsibility". The statement read: "I could not respect a man if he decided to stay at home and take care of his children while his wife worked." It may be noted that an attempt was made to choose new items from the same or similar fields as those being replaced despite the fact, mentioned above, that the subtest divisions were neither valid nor utilized. The effort was made despite these considerations as by doing so, it was hoped that the overall emphasis of the questionnaire and its basic orientation would remain as similar as possible to the original SSRI.

In the Knowledge section, one item was replaced. This read: "females possess an innate mothering instinct." It was felt that the literature on this subject is so great and opinions so varied that it was not reasonable to simply designate one response as high and another as low. It was thought that even well informed, knowledgeable subjects would find this question unmanageable. It was replaced by a relatively straight forward item which read: "Most teachers view and treat girls in their class in a different way from the boys." It was not considered necessary for the new item to closely reflect the orientation of the discarded one as the subset that the item had been removed from was simply called "Knowledge".

The modified SSRI was therefore constructed consisting of 20 attitude items and 17 knowledge items. Each item consisted of a statement to which five possible responses were provided:

- A - Strongly Agree
- B - Agree
- C - Undecided
- D - Disagree
- E - Strongly Disagree

Response weights of 1 to 5 were applied where the positive, unsexist response was assigned 5 marks. Sometimes the high score corresponded to A and sometimes to E. Those items where the high score was A were: 2, 6, 8, 20, 22, 24, 25, 27, 28, 29, 31, 32, 33, 35, 36 and 37, and those where it was E were: 1, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 26, 30 and 34. The scores were summed across items to give a total score for an individual. The highest possible score for an individual would be 185 points, and the lowest, 37.

A HIGH SCORE ON THE MODIFIED SSRI SHOWS A POSITIVE ATTITUDE TO SEX ROLE STEREOTYPING AND A HIGH DEGREE OF KNOWLEDGE ABOUT THE AREA.

A LOW SCORE ON THE MODIFIED SSRI SHOWS A TENDENCY TO STEREOTYPE ALONG SEXIST LINES AND A POOR KNOWLEDGE ABOUT THE SUBJECT.

The Procedure

Three hundred and forty-six subjects completed the questionnaire which is shown in Appendix 1. At the end of the 37 items the subjects were asked, by written instruction, to furnish certain demographic information. Subjects were

asked for their sex, their age, the length of time they had been teaching, the subject they taught or were to teach, whether they taught or intended to teach elementary or secondary grades, the board they worked for (if any) and the number of children they had of their own (if any). The subjects were also asked if they had ever belonged to a women's support group or attended women's studies courses. For each of these, five or less possible response categories were given (see Appendix 2).

The subjects were all volunteers. They were recruited from three cohorts:

1. Preservice student teachers from a faculty of education in an Ontario University were approached in classes, hallways and cafeteria and asked to complete the questionnaire. The faculty was situated in an industrial town in Southwestern Ontario with a population of 200,000. The faculty had 340 full time enrolled preservice teachers working towards a Bachelor of Education degree.
2. Inservice and Master of Education students from the same faculty were asked to complete the questionnaire. Enrolled in the faculty were 21 full time M.Ed. students, 180 part time M.Ed. students and 400 part time teachers completing courses for self improvement and promotion.
3. Teachers were asked, in 5 elementary schools to

complete the questionnaire.

The modified SSRI was completed by the subjects between April and June, 1984. The subjects were not aware of the hypotheses at the time. They were told not to put their names or any other identification on their answer sheets.

The subjects were divided into two distinct groups:

1. The student teachers (Students).

These subjects were all preservice teachers as described above. They all held undergraduate degrees from a Canadian University and almost all intended, if possible, to be teachers. They were male and female.

2. The practising teachers (the Practitioners).

These subjects were employed teachers or those who had been teachers but were now temporarily full time students. Most held undergraduate degrees. They were male and female.

Further demographic data concerning the subjects is now given.

Subjects

Altogether there were 346 subjects involved in this study, 182 B.Ed. students, to be known simply as Students, and 157 practising teachers, to be known as Practitioners. Of the Practitioners, approximately 1/4 were recruited directly from the schools, 1/4 were M.Ed. students, and the remainder were enrolled in inservice courses. The subjects will be categorized here according to some of the demographic data available. In the breakdown, however, figures were not

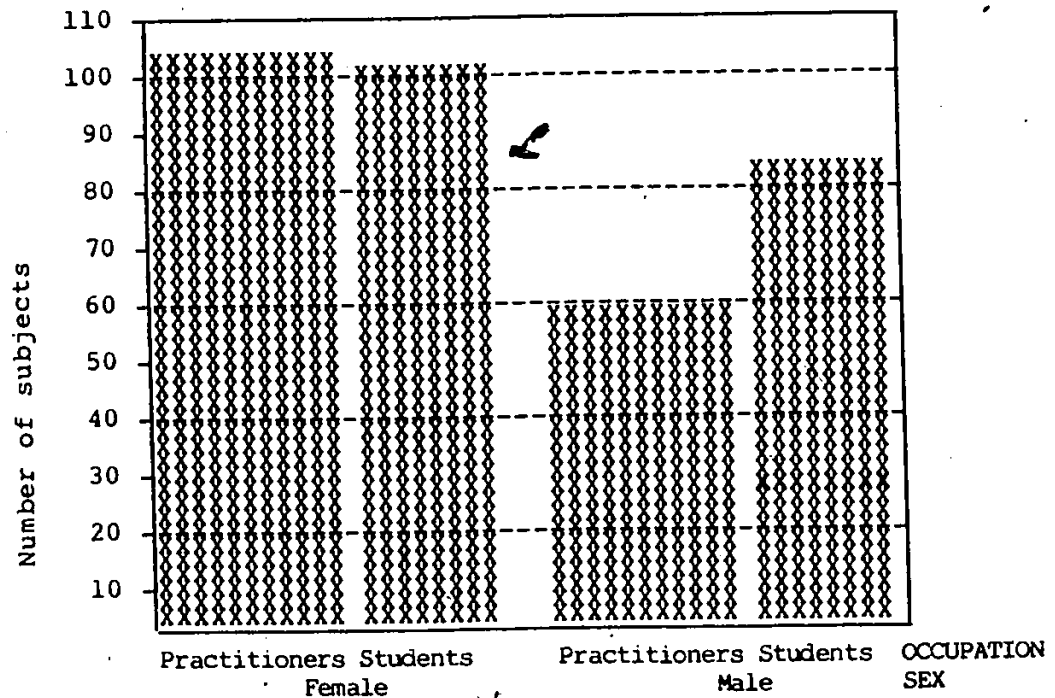
always available for all the subjects. This might be because a subject failed to give certain data or marked their computerized answer sheet either too faintly or incorrectly. In all the calculations, including the breakdown of subject characteristics here, only complete data will be used. Therefore, the total number of subjects in each table may not add up 346, and, total numbers will actually vary from table to table. This insures maximum possible accuracy.

Percentage figures refer to the percent of the total number of subjects for that particular table accounted for in that cell.

The figures given in the following tables and graphs refer to number of subjects. The figure in parentheses is the percentage of the total made up by that many subjects. Tables will be followed by graphs illustrating the tabulated data.

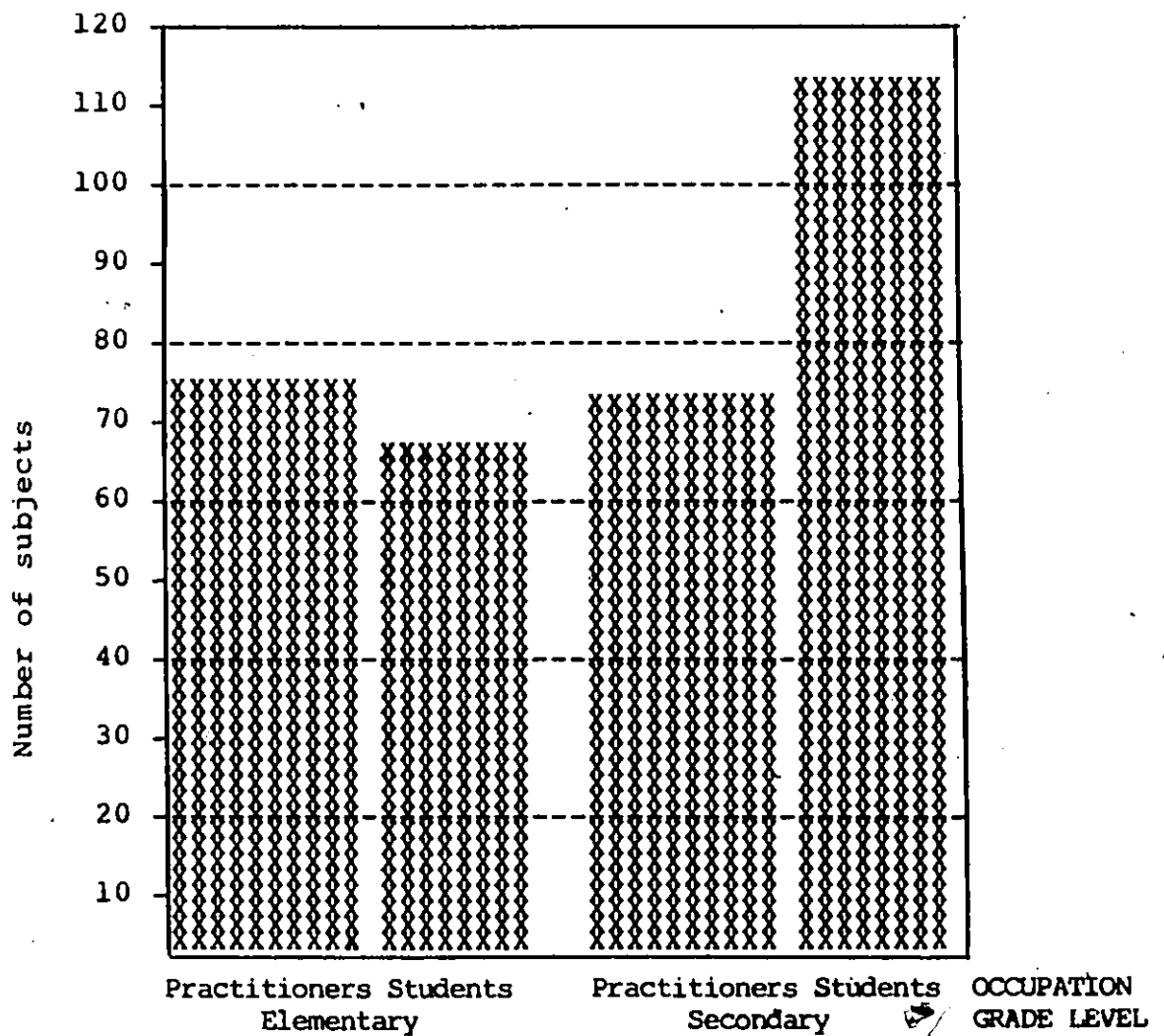
2.1 - Table and graph to show subjects, sex and occupation

	Practitioners	Students	Total
Female	102 (30.52%)	100 (29.94%)	202 (60.48%)
Male	51 (15.27%)	81 (24.25%)	132 (39.52%)
Total	153 (45.81%)	181 (54.19%)	334 (100%)



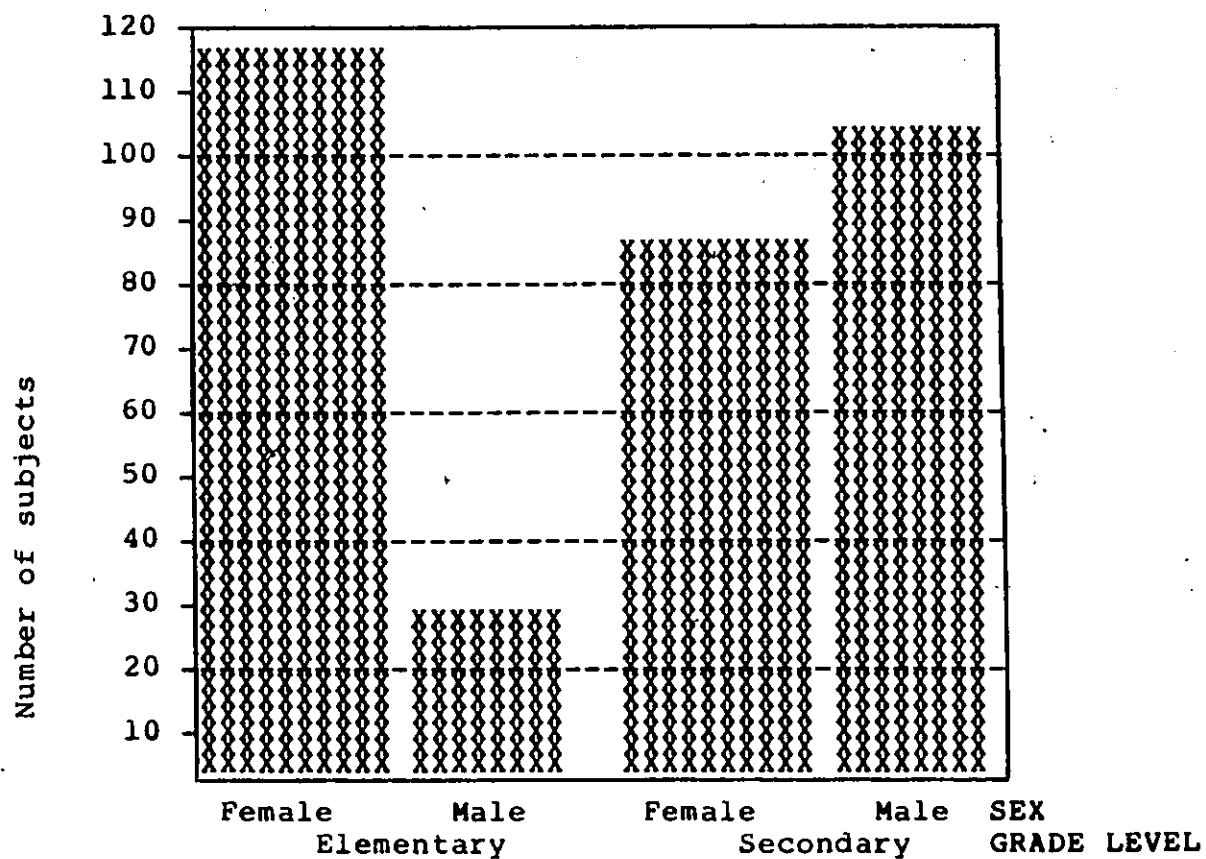
2.2 - Table and graph to show the grade level taught by the subjects and their occupation

	Practitioners	Students	Total
Elementary grades (K to 7)	75 (22.94%)	65 (19.88%)	140 (42.81%)
Secondary grades (8 to 13)	73 (22.32%)	114 (34.86%)	187 (57.19%)
Total	148 (42.26%)	179 (54.74%)	327 (100%)



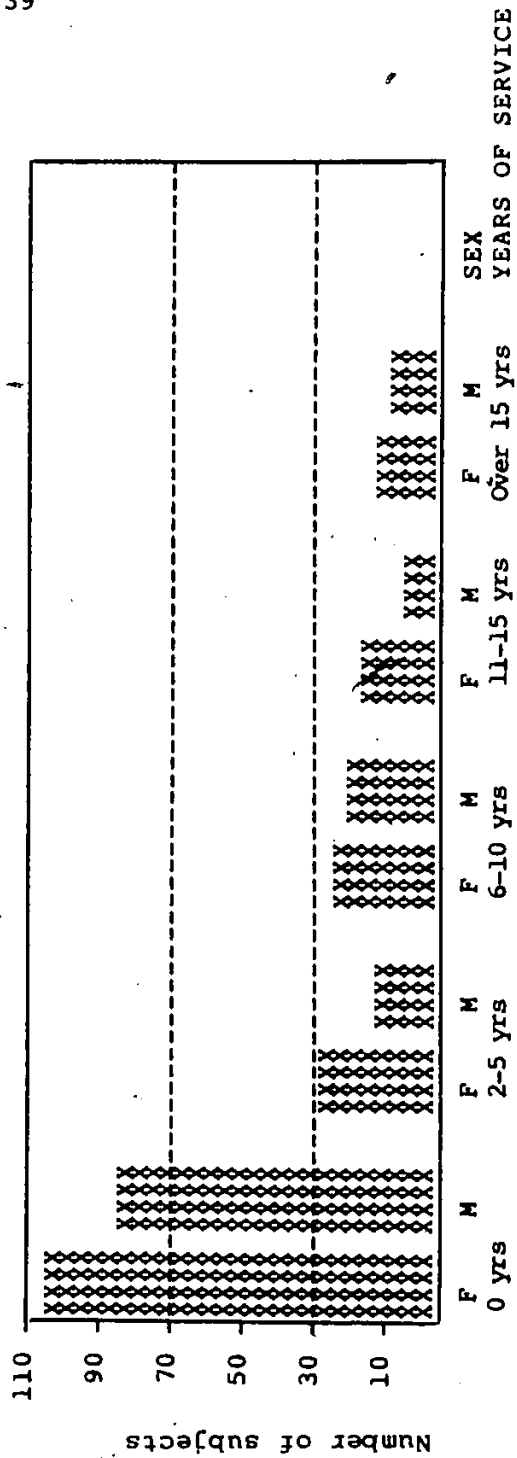
2.3 - Table and graph to show the grade levels taught by subjects and their sex

	Female	Male	Total
Elementary grades (K to 7)	118 (35.97%)	24 (7.32%)	142 (43.29%)
Secondary grades (8 to 13)	82 (25.00%)	104 (31.71%)	186 (56.71%)
Total	200 (60.98%)	128 (39.03%)	328 (100%)



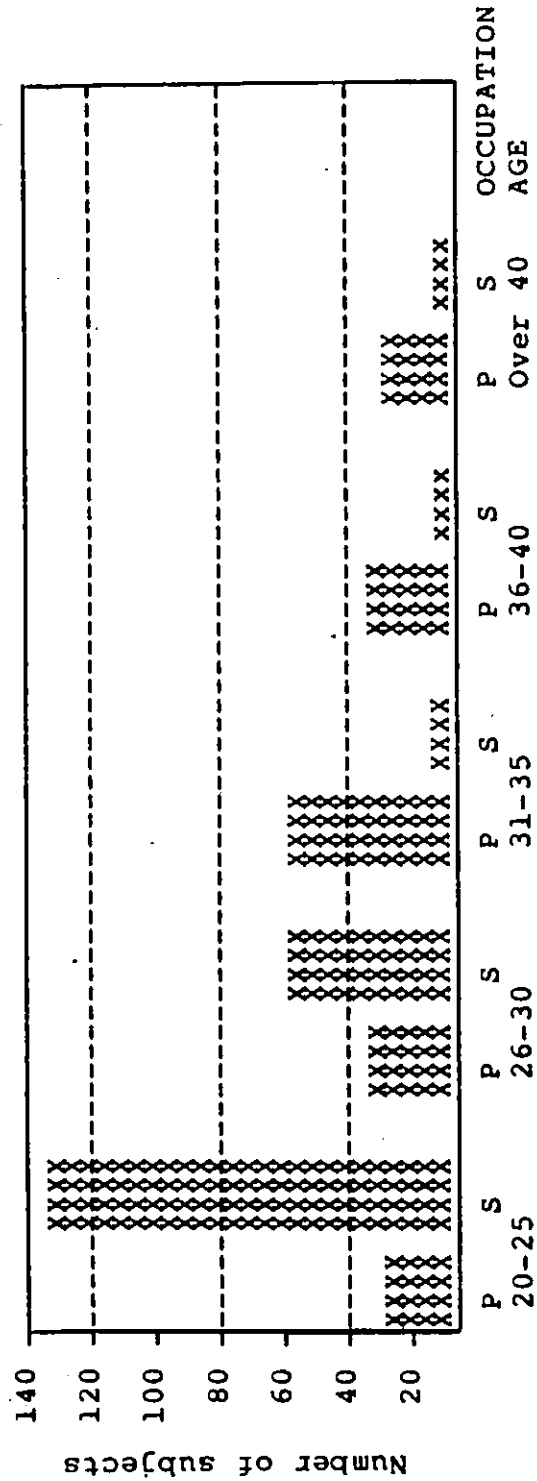
2.4 - Table and graph to show the number of years of service of the subjects and their age

	0 yrs	1-5 yrs	6-10 yrs	11-15 yrs	Over 15 yrs	Total
Female	105 (31.06%)	28 (8.28%)	26 (7.96%)	23 (6.80%)	22 (6.51%)	204 (60.35%)
Male	86 (25.04%)	9 (2.37%)	25 (7.39%)	5 (1.48%)	10 (2.96%)	134 (39.64%)
Total	191 (56.51%)	36 (10.65%)	51 (15.08%)	28 (8.28%)	32 (9.47%)	338 (100%)



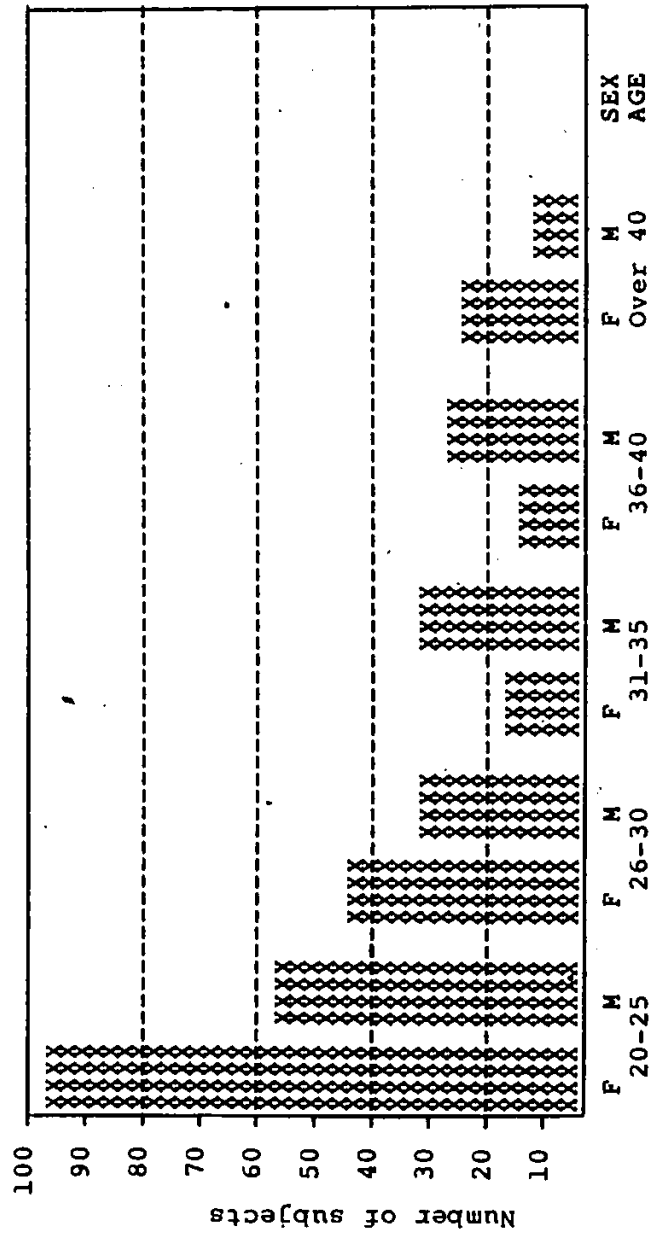
2.5 - Table and graph to show the age of the subjects and their occupation

	20-25 yrs	26-30 yrs	31-35 yrs	36-40 yrs	Over 40 yrs	Total
Practitioners	21 (6.31%)	27 (8.11%)	44 (13.21%)	34 (10.21%)	26 (7.81%)	152 (45.64%)
Students	131 (39.34%)	44 (13.21%)	4 (1.20%)	-	2 (0.60%)	181 (54.35%)
Total	152 (45.64%)	71 (21.32%)	48 (14.41%)	34 (10.21%)	28 (8.41%)	333 (100%)



2.6 - Table and graph to show the subjects, age and their sex

	20-25 yrs	26-30 yrs	31-35 yrs	36-40 yrs	Over 40 yrs	Total
Female	97 (29.13%)	41 (12.31%)	18 (5.40%)	11 (3.30%)	21 (6.30%)	188 (56.46%)
Male	55 (16.52%)	30 (9.01%)	30 (9.01%)	23 (6.91%)	7 (2.10%)	145 (43.54%)
Total	152 (45.64%)	71 (21.32%)	48 (14.41%)	34 (10.21%)	28 (8.41%)	333 (100%)



CHAPTER 3

RESULTS

The data was analyzed using the S.A.S. computer package. The General Linear Models Procedures was utilized to perform a series of ANOVAs on the relevant data.¹

An ANOVA was performed incorporating three independent variables:

1. Occupation (student or practitioner).
2. Age (in the categories 20-25, 26-30, 31-35, 36-40 and over 40).
3. Sex (male or female).

The dependent variable was the score on the modified SSRI. The ANOVA table is given in Table 3.1.

¹This procedure produces two F values and two probability levels for each variable or interaction (although in single variable, one way ANOVAs these will be identical and only one will be reported). The first F value and probability level is based on a Type I sum of squares (S.S.) which examines the data with only the previously analyzed variables controlled for. The second F value and probability level is based on a Type III S.S. whereby all variables, other than those specifically under scrutiny, are controlled thereby isolating, to a much larger extent, the relevant variables. Type III S.S. is used here rather than Type IV as there are some missing cells in the overall design. However, due to the nature of the program, the mean scores reported are based on the Type I S.S. Therefore, while the means given will show the direction of any significant differences, they may not be exactly the same figures as would appear for the Type III S.S.

3.1 - ANOVA Table - Occupation x Sex x Age

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR> F	R SQUARE	SCORE MEAN
Model	16	19434.893	1214.680	5.96	0.0001	0.2317	135.144
Error	316	64434.770	203.907				
Corrected Total	332	83869.663					

SOURCE	DF	TYPE I SS	F VALUE	PR> F	DF	TYPE III SS	F VALUE	PR> F
Occupation	1	242.875	1.19	0.2759	1	441.199	2.16	0.1423
Age	4	2055.738	2.52	0.0412	4	2151.406	2.64	0.0340*
Sex	1	13113.582	64.31	0.0001	1	1538.292	7.54	0.0069**
Occupation x Age	3	2012.874	3.29	0.0208	3	1946.953	3.18	0.0239*
Occupation x Sex	1	108.475	0.53	0.4663	1	200.157	0.98	0.3226
Age x Sex	4	143.405	0.18	0.9495	4	733.700	0.90	0.4645
Occupation x Age x Sex	2	1755.943	4.31	0.0143	2	1755.943	4.31	0.0143*

Dependent Variable: Score

*P< 0.05

**P< 0.01

1. Occupation

The students did not differ significantly in their scores from the practitioners, using a straight practitioner/student dichotomy. The mean scores on the modified SSRI for the practitioners (N = 152) was 136.05 and that for the students (N = 181), 134.33. This difference was not significant at the 0.05.

2. Age

Differences were found in the scores of various age groups, significant at the 0.05 level. The mean scores for each age group are given in Table 3.2. For the purposes of the calculations, the median values of each of the age categories was utilized (22.5, 28.5, 32.5, 38.5 and 40). The scores are also shown graphically (see Graph 3.1).

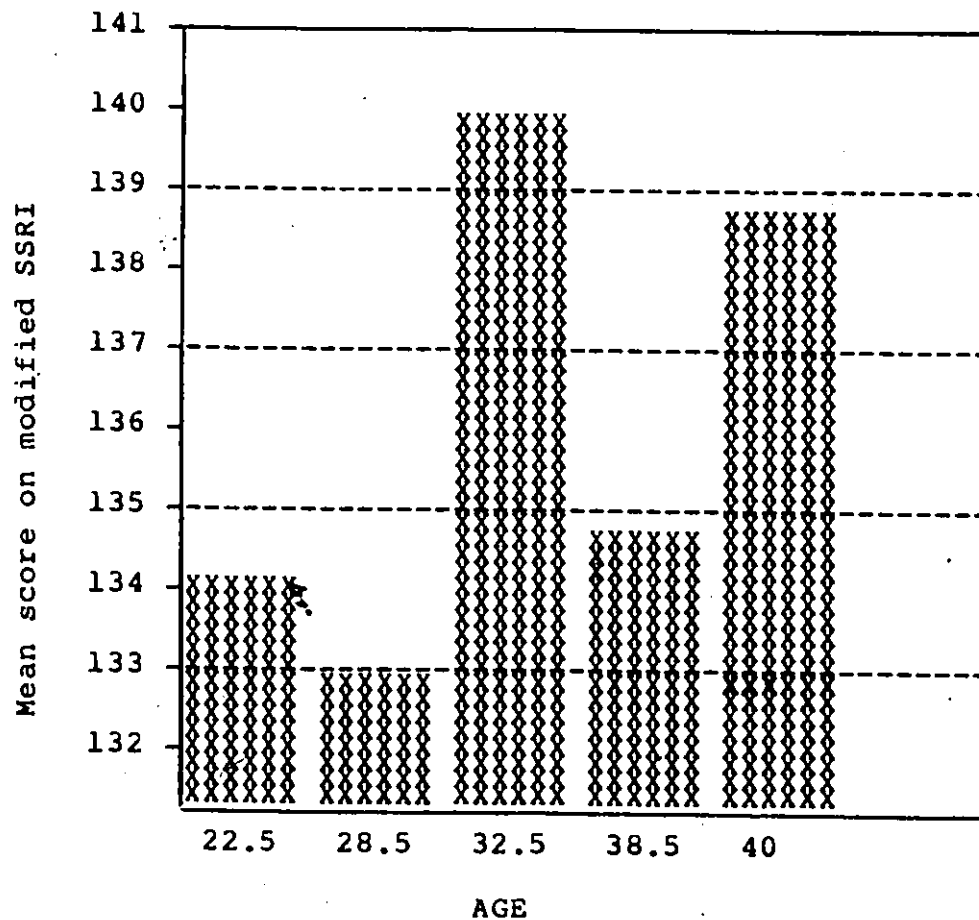
Table 3.2

Mean Scores for various age groups

Age	N	Score
22.5	152	134.026
28.5	71	132.717
32.5	48	140.083
38.5	34	134.97
40	28	138.750

More specifically, the scores for the 32.5 year olds were significantly higher than those for the 28.5 year olds in this calculation - that is, the 30-35 year olds were significantly less inclined to sex role stereotype than the 25-30 year olds.

Graph 3.1 - showing scores of different age groups



More specifically, the scores for the 32.5 year olds were significantly higher than those for the 28.5 year olds in this calculation. That is, the 30-35 year olds were significantly less inclined to sex role stereotype than the 25-30 year olds.

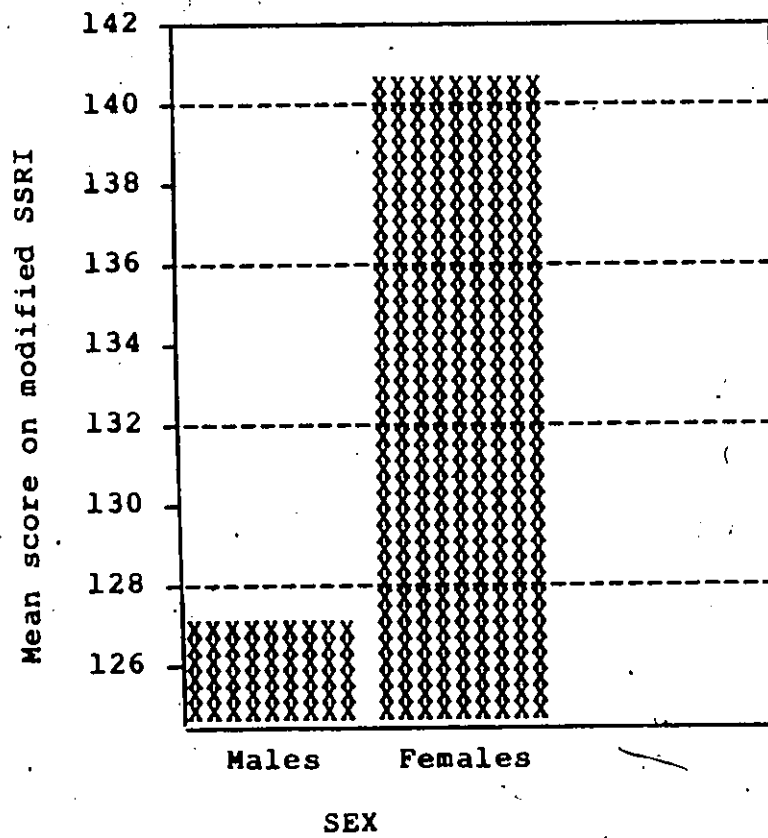
3. Sex

Males and females differed in their scores, an effect which was significant at the 0.01 level. The mean scores are shown in Table 3.3 and Graph 3.2.

Table 3.3

Mean Scores for Males and Females

Sex	N	Score
Male	132	127.33
Female	201	140.22

Graph 3.2 - to show male and female scores

4. Interactions

A significant interaction was found between occupation (student or practitioner) and sex in this calculation, significant at the 0.05 level). The mean scores of the students and the practitioners according to the five age categories are shown in Table 3.4.

Table 3.4

Mean Scores of Practitioners and Students by Age

Age	Practitioners	Students
22.5	138.143 (N = 21)	133.366 (N = 131)
28.5	128.444 (N = 27)	135.341 (N = 44)
32.5	138.659 (N = 44)	155.750 (N = 4)
38.5	134.970 (N = 34)	- (N = 0)
40	139.231 (N = 26)	132.500 (N = 2)

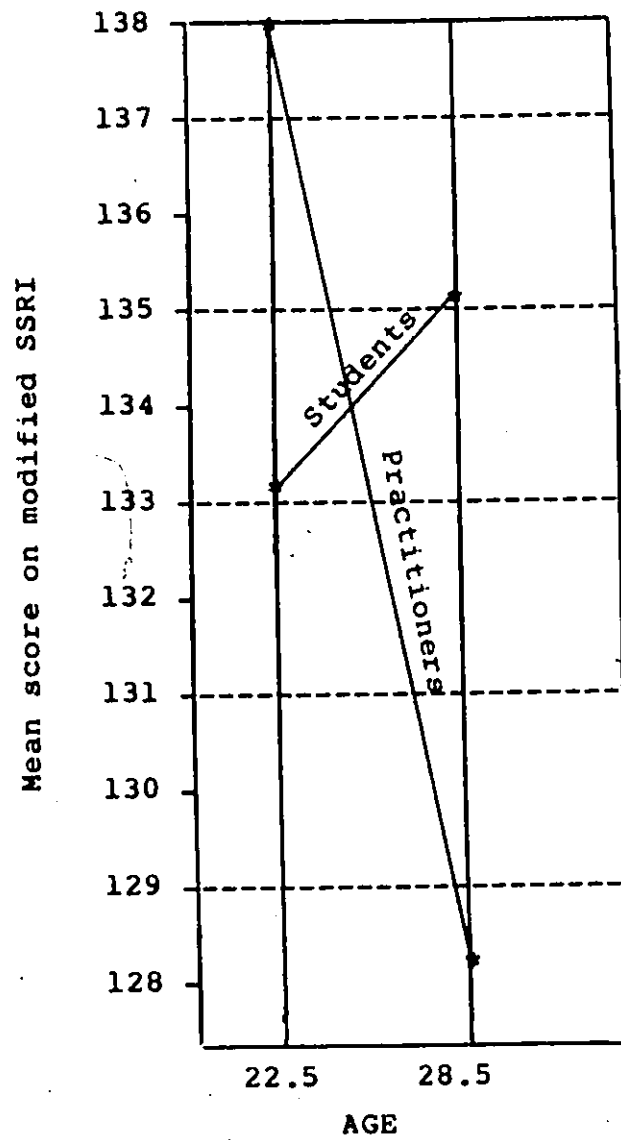
As many of the cells were either empty or contained very small Ns, the interaction was sought between the first two age categories. In these categories N = 20 in all four cells. These scores are shown in Graph 3.3 which illustrates the interaction.

It would appear that while 28.5 year old practitioners score lower than 22.5 year old practitioners, 28.5 year old students score higher than the 22.5 year old students.

An occupation x age x sex interaction was also found, significant at the 0.05 level. Interpretation of such a 3-way interaction should be extremely cautious as the cell sizes were small, and, in some cases, empty.

The mean scores for each category are given in Table 3.5.

Graph 3.3 - to show age x occupation interaction



3.5 - Table of scores according to sex, age and occupation

OCCUPATION					
Practitioners			Students		
Age	Sex		Male	Female	Female
	Male	Female			
22.5	133.0 (N = 3)	139.0 (N = 18)	124.88 (N = 52)	138.91 (N = 79)	
28.5	124.85 (N = 14)	132.31 (N = 13)	128.44 (N = 27)	146.29 (N = 17)	
32.5	128.00 (N = 16)	144.75 (N = 28)	166.00 (N = 2)	145.50 (N = 2)	
38.5	128.91 (N = 11)	137.87 (N = 23)	- (N = 0)	- (N = 0)	
40	128.70 (N = 7)	143.10 (N = 19)	- (N = 0)	145.50 (N = 21)	

The interaction was sought, once again, in the 22.5 and 28.5 age groups as these cells had consistently higher *Ns* than those involving older subjects. The interaction appears to be one of magnitude, while both male and female practitioners decrease their scores over this age period, but both male and female students increase theirs over the same period. However, the effect in the practitioners is large for both males (8.14 points) and females (6.69 points), and, in the students the effect is large for the females (7.34 points), but much smaller for the males (3.56 points), which is illustrated in Graph 3.4.

A second 3-way ANOVA was performed using a different combination of independent variables:

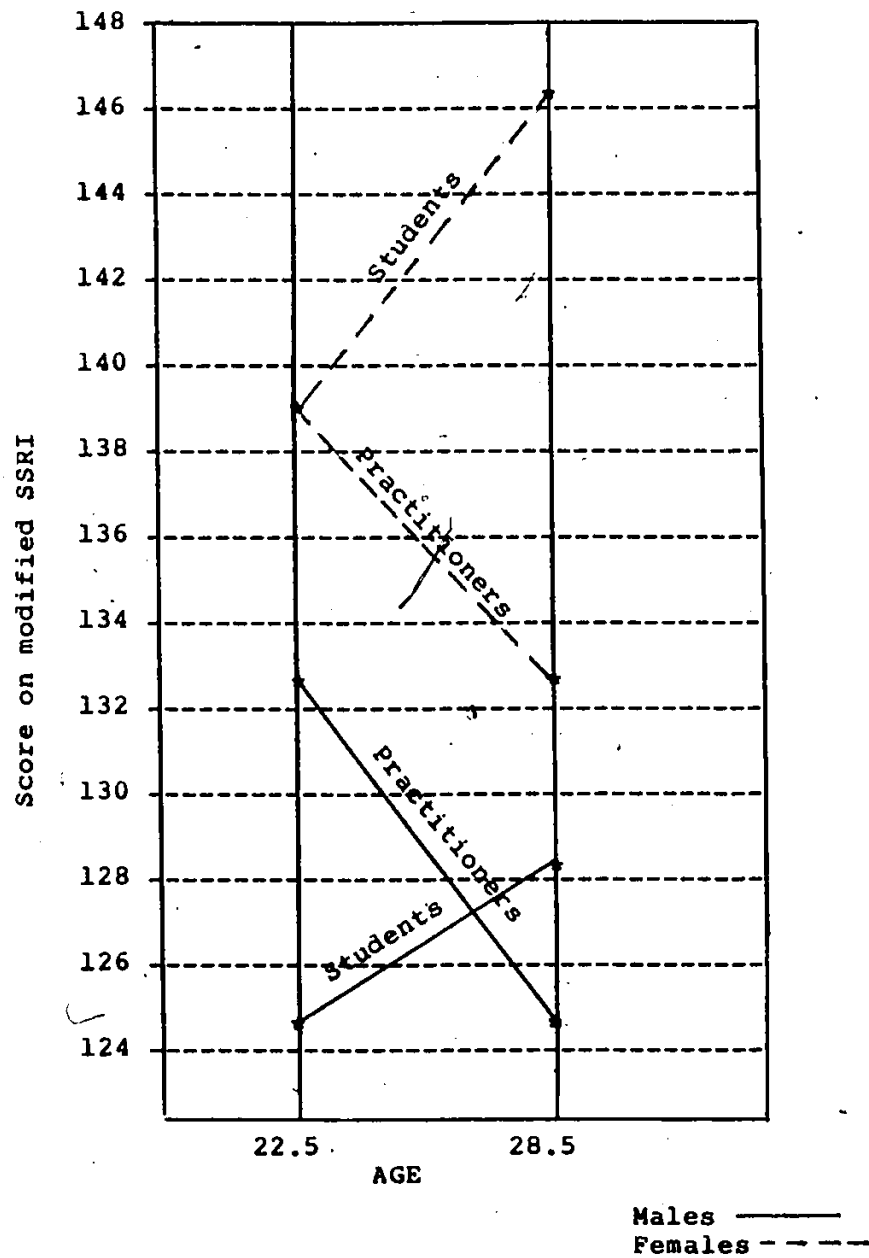
1. Sex (male or female)
2. Years of service (0, 1-5, 6-10, 11-15, over 15)
3. Age (22.5, 28.5, 32.5, 38.5, 40)

The years of service categories were broken down to give a single figure, using the median, rather than a range, as had been done previously with the age ranges. The years of service are 0, 2-5, 7-5, 12-5, and 15. Once again, the dependent variable was the score on the modified SSRI. The ANOVA table is shown in Table 3.6.

1. Sex

As in the previous calculation, the sexes produced significantly different scores. The mean scores for

Graph 3.4 - showing age x sex x occupation interaction



3.6 - ANOVA Table - Sex x Years of Service x Age

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F	R SQUARE	SCORE MEAN
Model	35	27461.267	707.465	3.51	0.0001	0.289	135.201
Error	302	60809.053	201.354				
Corrected Total	337	85570.319					

SOURCE	DF	TYPE I SS	F VALUE	PR > F	DF	TYPE III SS	F VALUE	PR > F
Sex	1	12612.142	62.64	0.0001	1	3368.259	16.73	0.0001****
Years of service	4	1184.586	1.47	0.2110	4	2723.558	3.38	0.0100**
Age	4	2959.833	3.67	0.0061	4	3949.306	4.90	0.0008***
Sex x Age	4	257.331	0.32	0.8648	4	700.470	0.87	0.4824
Sex x Years of service	4	678.270	0.84	0.4993	4	531.634	0.66	0.6202
Years of service x Age	13	4275.206	1.63	0.0749	13	2284.884	0.87	0.5829
Sex x Years of service x Age	5	2793.898	2.78	0.0181	5	2793.898	2.78	0.0181*

**P < 0.001 level

****P < 0.0001 level

*P < 0.05 level

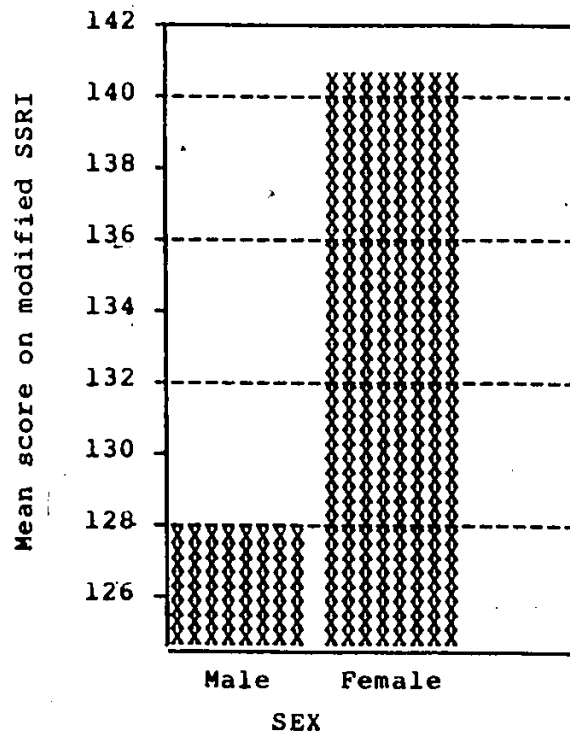
**P < 0.01 level

females and males are given in Table 3.7 and Graph 3.5.
The difference was significant at the 0.0001 level.

Table 3.7
Mean Scores for Males and Females

Sex	N	Score
Male	134	127.66
Female	204	140.15

Graph 3.5 - to show male and female scores



2. Years of Service

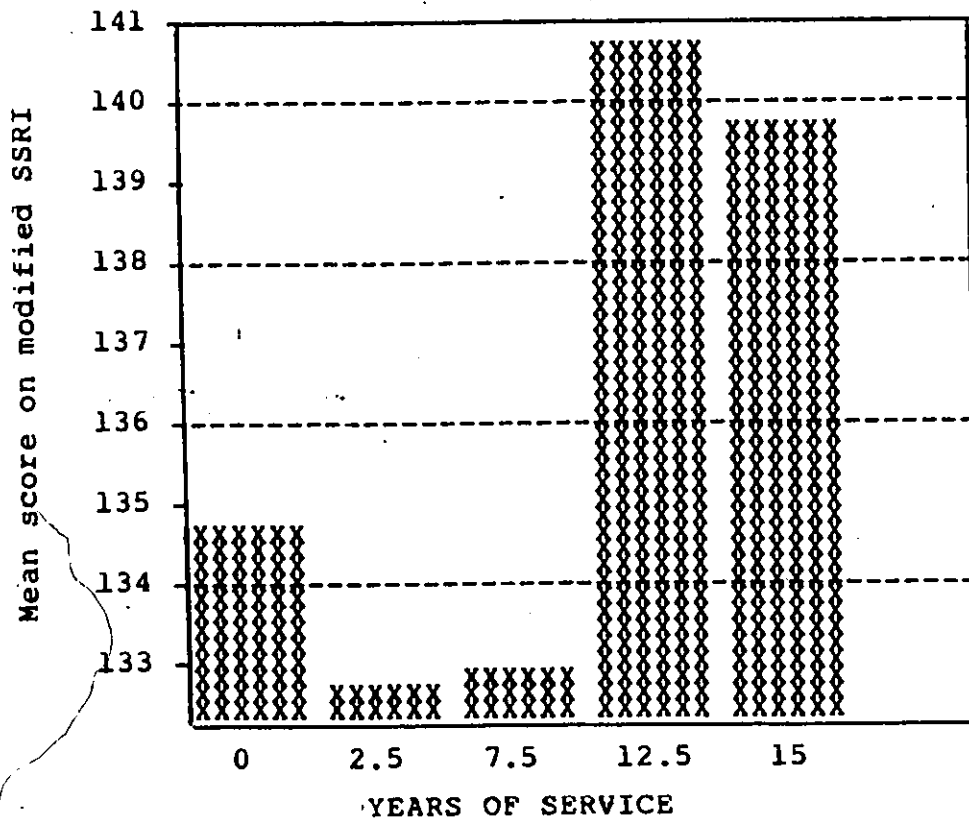
The mean scores for the various years of service are given in Table 3.8 and Graph 3.6.

Table 3.8

Mean Scores for Various Years of Service

Years of Service	N	Score
0	191	134.47
2.5	36	133.31
7.5	51	133.51
12.5	28	140.61
15	32	139.66

Graph 3.6 - Mean scores for different lengths of service



It is not possible to pinpoint exactly where individual differences occur, but, judging from the differences between the means one occurs between those subjects with 0-10 years of service and those who have taught for more than 10 years. A dramatic raise in scores occurs between those in the 7.5 years of service category and those in the 12.5 category of 7.10 points. This difference in scores is significant at the 0.01 level.

3. Age

The mean scores for each age group are given in Table 3.9. They are slightly different from the scores given for the age in the previous ANOVA, as the number of Ss in the two computations differed marginally.

Table 3.9

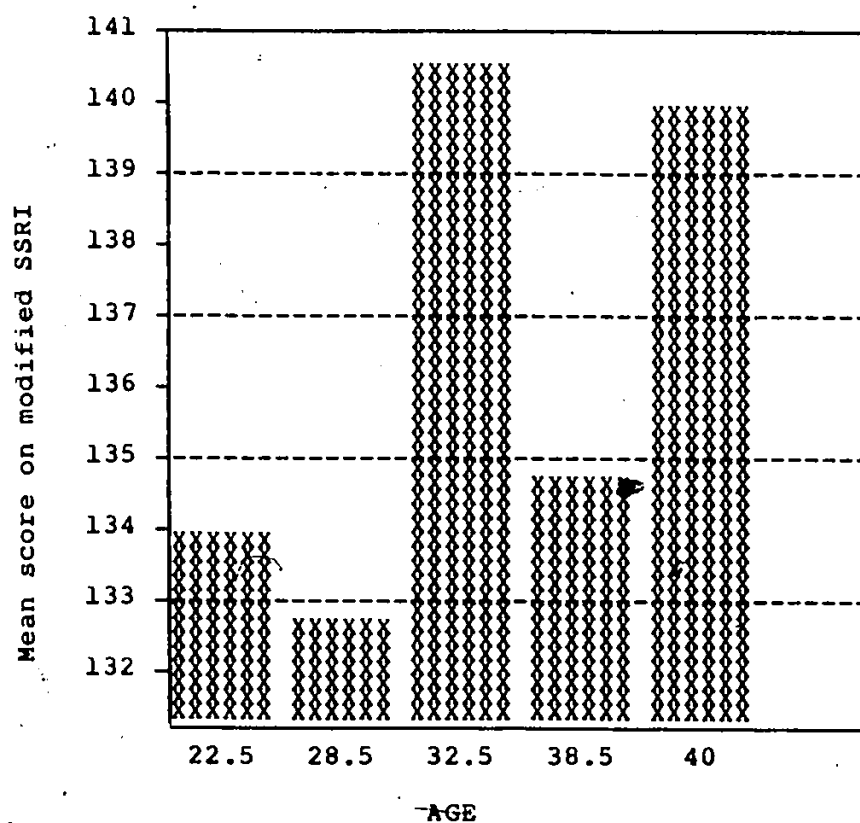
Scores for Various Age Groups

Age	N	Scores
22.5	154	133.97
28.5	73	132.77
32.5	50	140.48
38.5	34	134.97
40	27	139.33

A difference, significant at the 0.001 level was found between those subjects ages 28.5 and those 32.5 (as in the previous computation) and, also between those

subjects of 22.5 and those of 32.5, (see Graph 3.7).

Graph 3.7 - Scores for each age group on modified SSRI



4. Interactions

No significant 2-way interactions were found. However, a 3-way age x sex x years of service interaction did appear, significant at the 0.05 level. The mean scores for this interaction are found in Table 3.10.

3.10 - Table showing age x years of service x sex mean scores

Age	Sex									
	Male					Female				
	Years of Service					Years of Service				
	2.5	7.5	12.5	15	0	2.5	7.5	12.5	15	
22.5	***** ** 125.44 ** ** N = 59 ** *****	***** ** 119.00 ** ** N = 1 ** *****	***** ** 127.33 ** ** N = 9 ** *****	***** ** 107.00 ** ** N = 1 ** *****	***** ** 135.55 ** ** N = 84 ** *****	***** ** 140.71 ** ** N = 14 ** *****	***** ** 130.00 ** ** N = 1 ** *****	***** ** 120.00 ** ** N = 1 ** *****	***** ** 140.78 ** ** N = 9 ** *****	
28.5	***** ** 128.00 ** ** N = 27 ** *****	***** ** 126.50 ** ** N = 4 ** *****	***** ** 126.63 ** ** N = 11 ** *****	***** ** 107.00 ** ** N = 1 ** *****	***** ** 145.63 ** ** N = 19 ** *****	***** ** 127.50 ** ** N = 6 ** *****	***** ** 137.50 ** ** N = 6 ** *****	***** ** 120.00 ** ** N = 1 ** *****	***** ** 146.46 ** ** N = 13 ** *****	
32.5	***** ** 166.00 ** ** N = 2 ** *****	***** ** 128.66 ** ** N = 3 ** *****	***** ** 126.63 ** ** N = 11 ** *****	***** ** 138.00 ** ** N = 3 ** *****	***** ** 145.50 ** ** N = 2 ** *****	***** ** 139.66 ** ** N = 3 ** *****	***** ** 145.75 ** ** N = 16 ** *****	***** ** 144.67 ** ** N = 9 ** *****	***** ** 140.78 ** ** N = 9 ** *****	
38.5	***** ** 126.00 ** ** N = 5 ** *****	***** ** 124.75 ** ** N = 4 ** *****	***** ** 117.00 ** ** N = 1 ** *****	***** ** 128.25 ** ** N = 4 ** *****	***** ** 126.00 ** ** N = 0 ** *****	***** ** 126.00 ** ** N = 3 ** *****	***** ** 116.66 ** ** N = 3 ** *****	***** ** 147.00 ** ** N = 8 ** *****	***** ** 140.78 ** ** N = 9 ** *****	
40	***** ** 137.00 ** ** N = 1 ** *****	***** ** 134.00 ** ** N = 1 ** *****	***** ** 126.00 ** ** N = 5 ** *****	***** ** 126.00 ** ** N = 5 ** *****	***** ** 126.00 ** ** N = 0 ** *****	***** ** 128.00 ** ** N = 2 ** *****	***** ** 140.20 ** ** N = 5 ** *****	***** ** 140.20 ** ** N = 5 ** *****	***** ** 146.46 ** ** N = 13 ** *****	

Any interpretation of these scores should be undertaken with extreme caution as the numbers in the cells are so small. However, certain cells may be isolated for consideration for having reasonable sized N s ($N > 6$) and for having correspondent cells in the opposite sex matrix, also with $N > 6$. These cells have been marked. It could be that while male and female subjects who have taught (years of service = 0) increase their scores from the ages 22.5 to 28.5, with older, more experienced teachers, scores continue to rise with females but fall in the males. This effect can be seen in the 7.5 years of service, 28.5 to 32.5 year old difference and in the 15 years of service, 38.5 to 40 year old difference. Each of the score changes is much larger in the females than in the males. The pattern can be seen in Graph 3.8.

An ANOVA was performed using two variables:

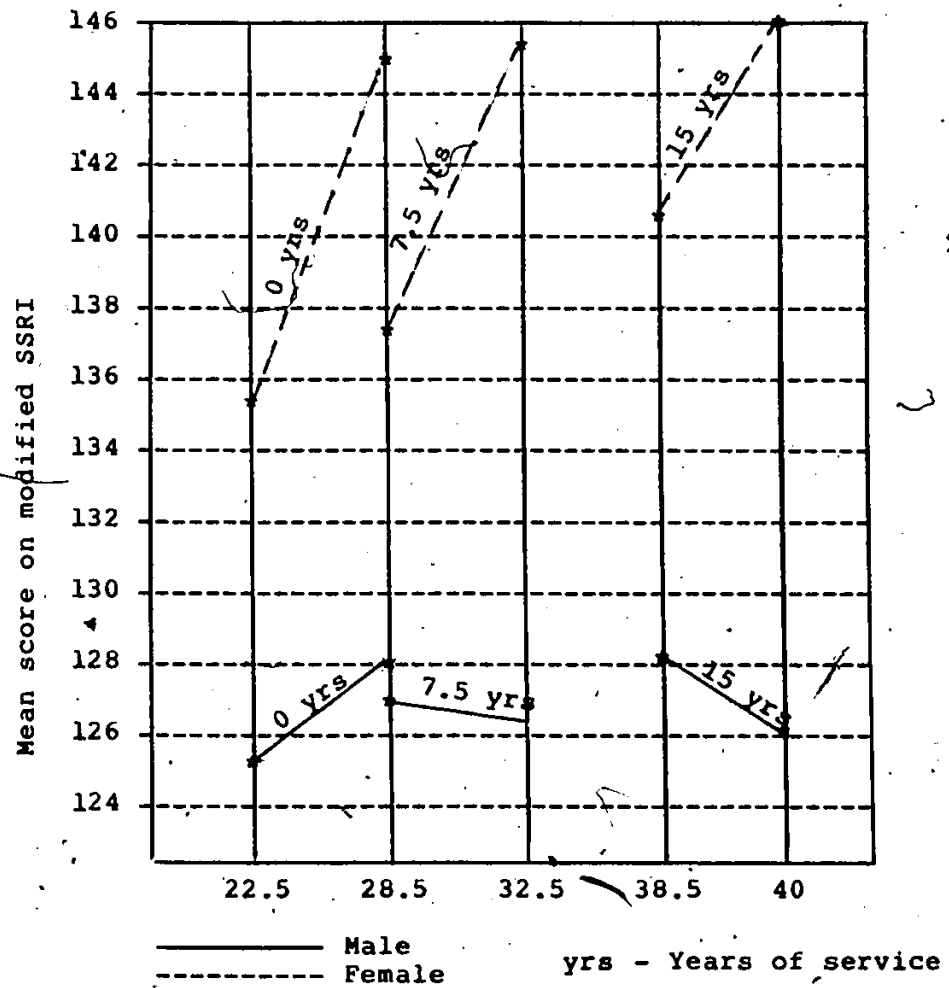
1. Sex (male or female)
2. Grade level (elementary or secondary)

The dependent variable was scored on the modified SSRI. The ANOVA table is given in Table 3.11.

Sex

Sex was the only variable to show a significant effect on the score, at 0.0001 level. This supports the previous findings for sex. In this case, the mean

Graph 3.8 - showing age x years of service x sex interaction



3.11 - ANOVA table for grade level and sex variables

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F	R SQUARE
Model	3	14135.015	4711.671	22.4	0.0001	0.17179
Error	324	68144.546	210.323			
Corrected total	325	82279.561				

SOURCE	DF	TYPE I SS	F VALUE	PR > F	DF	TYPE III SS	F VALUE	PR > F
Grade level	1	4194.850	19.94	0.0001	1	671.536	3.19	0.0749
Sex	1	9644.418	45.86	0.0001	1	6972.494	33.15	0.0001****
Grade level x sex	1	295.747	1.41	0.2366	1	295.747	1.41	0.2366

* P < 0.05 *** P < 0.001

** P < 0.01 **** P < 0.0001

score for the women ($N = 200$) was 140.58 and for the men ($N = 128$), 127.47.

It is of interest to note that before sex was controlled in the calculation, that is, using Type I SS, grade level appeared to show a significant effect. However, once sex was controlled, in the Type III SS, this was no longer the case. This is almost certainly because so many of the elementary teachers were female (118 of the 142 total). It was the high female element which made the elementary scores appear so high. The male/female split in the secondary teachers was even more (104 men and 82 women).

There was no grade level x sex interaction.

* * * * *

An ANOVA was performed using the womens' studies variable. This examined the scores of individuals who had at some time been members of womens' support groups or attended womens' studies sessions. The ANOVA results are given in Table 3.12. The dependent variable was the score on the modified SSRI.

Womens' Studies

The womens' studies variable made a significant difference to the scores. There was a difference, significant at the 0.05 level between those who had

3.12 - ANOVA table for womens' studies variable

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F	R SQUARED
Model	1	2581.167	2581.167	10.00	0.0017	0.028643
Error	339	87535.372	258.216			
Corrected Total	340	90116.539				

SOURCE	DF	TYPE I SS	F VALUE	PR > F
Womens' studies	1	2581.167	10.00	0.0017**

*P < 0.05

**P < 0.01

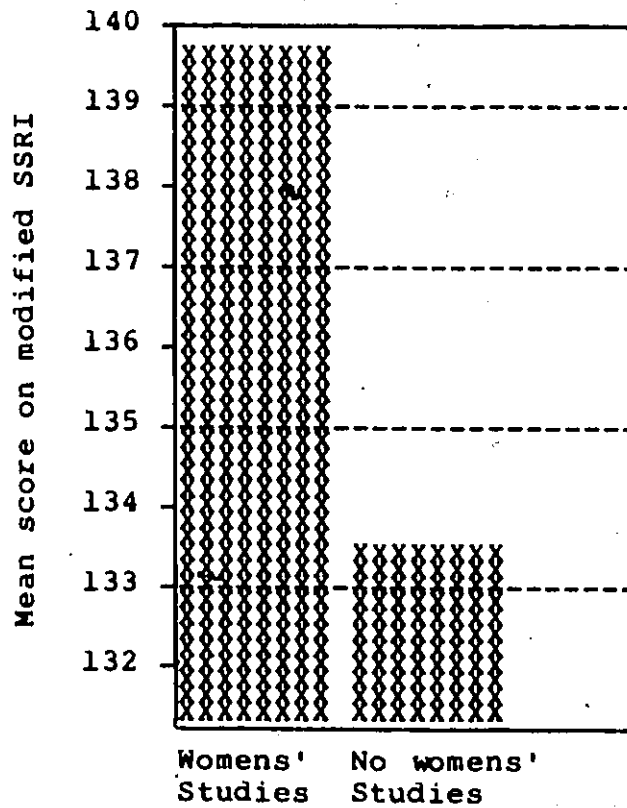
attended groups or classes and those who had not. The results are given in Table 3.13 and in Graph 3.9.

Table 3.13

Mean Scores for Womens' Studies Variable

Womens' Studies	N	Score
Attended classes or groups	81	139.81
Had not attended classes or groups	260	133.35

Graph 3.9 - to show scores according to womens' studies variable



Finally, an ANOVA was performed to examine the scores of teachers from one particular school board (Board X) as compared to all the other subjects. This board was chosen as it had run an affirmative action campaign for women over the previous few years. The ANOVA results are given in Table 3.14.

Board X

No significant difference was found in the scores between teachers working for the Board X and the other subjects.

The mean overall on the modified SSRI was 134.83 points. The lowest score attained was 63.0 and the highest, 177.0.

3.14 - ANOVA table for X Board variable

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F	R SQUARE
Model	1	815.587	815.587	3.07	0.0807	0.008839
Error	344	91450.689	265.843			
Corrected Total	345	92266.277				

SOURCE	DF	TYPE I SS	F VALUE	PR > F
Board X	1	815.587	3.07	0.0807

CHAPTER 4

DISCUSSION

The findings

The findings from this study will be discussed by examining each of the variables considered in the analyses. This will be followed in each case by a review of the original hypotheses in an attempt to see which were supported and which refuted. Possible reasons for the rejection of hypotheses will also be proposed where appropriate.

1. Occupation

The first variable was that of occupation. It will be remembered that the subjects were divided into two major categories, the Students (preservice teachers) and the Practitioners (practising teachers). Using this distinction alone, no difference was found in the scores on the modified SSRI between these two groups. Of importance was the fact that the two groups were not sufficiently different from one another. Many of the Practitioners had taught for only a few years and were hardly older than the students. As such, to hope to find major differences between the two groups was probably unrealistic. If the Practitioners had all taught for over five years, a difference between the groups would more likely have been found. This failure to find a difference was not, however, of the greatest importance as other variables which divided

the subjects more usefully, did differentiate certain groups.

The first hypothesis, that the students would score higher on the modified SSRI, and, would therefore be less inclined toward sex role stereotyping but would be highly knowledgeable about sexism, was not supported.

2. Age

The age variable produced some unexpected results.

The younger age groups (20-25 and 26-30) scored quite low on the modified SSRI, but those subjects of 31-35 scored much higher, as did those over 40 years old. The subjects of 31-35 actually scored significantly higher than the younger subjects. This means that the 31-35 year olds showed a significantly more positive attitude to sex role stereotyping and a greater degree of knowledge about the area than the younger subjects. The scores of the subjects aged 36-40 were lower but this was not significant at the 0.05 level and the over 40's scored higher, though, again, this difference was probably due to chance. This effect in the 31-35 year olds could be seen even when occupation, sex and years of service were all controlled.

It is not easy to explain this pattern. The 31-35 year olds would have been undergraduate students around 1970, which, in many ways, was a liberated and radical era. It could be that the younger subjects would have been in university at a time when economic recession was beginning and life in general appeared less optimistic than in the

'swinging' sixties and early seventies. This may be reflected in more rigid, less permissive attitudes in the younger subjects. Another possible explanation is that many of the 31-35 year olds may have been married with young children. The emphasis recently on non sexist child rearing may have strongly affected those young parents. It could also be that as individuals age, so their tendency to stereotype along sexist lines, decreases. This is, however, contrary to the literature cited earlier. Yet another possible explanation is that the scores are higher in this category because these teachers are more knowledgeable in the field than the other teachers. Teachers of this age, firmly established in their jobs and seeking employment, might be ready to read and seek improvement whereas earlier in their careers, the time and motivation was not available. This would be supported by the fact that in 1983, the average age for M.Ed. candidates at the faculty of education where this study was carried out, was 33.9 years. Teachers of this age then, seem to be concerned with further study and this might include a positive attitude to issues in education, including sexism and sex role stereotyping.

The precise reason for the score pattern obtained from the different age groups cannot be explained here. However, the hypothesis that younger subjects would score higher on the modified SSRI than older ones, was not supported.

3. Years of Service

The years of service variable affected the scores on the modified SSRI in a way which, like the age variable, is difficult to explain. Due to the nature of the program used, it is not possible to say exactly where significant differences lay between different lengths of service. However, from the means, it can be seen that the scores rise dramatically between the 7.5 (6 to 10 years of service) and the 12.5 (11 to 15 years of service) categories. Both age and sex were controlled in this analysis and another explanation must be sought for this effect. The raise in scores in the subjects who had taught many years, implies that those subjects were less likely to stereotype along sexist lines and were more knowledgeable in the area than those subjects who had only taught for a few years or not taught at all. This implies that the experience of teaching itself, evokes a more liberal attitude in the teachers toward sex role stereotyping. The most likely explanation is that the longer teachers spend in schools, the more they are exposed to literature and information concerning sex role stereotyping. It may also be that once teachers have taught for several years, they become sufficiently competent and confident in their job that they have more time for reading and exploring issues in education.

The hypothesis that teachers who had taught for many years would score lower on the modified SSRI than those

who were new to teaching or had not taught at all, was not supported.

4. Sex

Sex turned out to be an important independent variable. In all three cases where sex was included in an analysis, women scored significantly higher than men on the modified SSRI. This was true when the occupation, age, number of years in teaching and the grade level taught were all controlled for. The women scored consistently higher than the men, revealing more positive attitudes toward, and, a greater knowledge of, the issue of sex role stereotyping. There are several possible reasons for this greater awareness. It could be that women are more frequently the recipients of affirmative action and feminist literature and information. This, in turn, may be due to the fact that women tend to be the losers in the sex 'war'. They are shown, by the literature, that they are frequently the target of discrimination and, as such, they become concerned about the issue. Men, however, are not directly affected by discrimination against women and they are, therefore, naturally far less concerned about it.

Another possible reason for women's heightened awareness is the fact that many women will personally have had negative experiences as a result of their sex and this has made them more aware. Such experiences may have been the failure to procure a job when competing with less qualified male

applicants or even something as seemingly trivial as being refused entry into a sports team on account of not being male. The possible reasons are endless.

The hypothesis that women would score higher than men on the modified SSRI was clearly supported.

5. Grade Level

Elementary and secondary teachers did not score significantly differently on the modified SSRI once sex was controlled for. However, before sex was controlled, it appeared that elementary teachers scored much higher, that is, with a more positive attitude and more knowledge, than the secondary teachers. This effect occurred because such a large proportion of elementary school teachers in the sample were female. This is also the case in the schools. For example, in 1982, in Ontario, there were 32,098 female and, 12,765 male, elementary teachers. In the same year in Ontario there were 7,669 female and, 15,432 male, secondary teachers (Ministry of Education, Ontario, 1982). Given that women teachers are less sexist and more knowledgeable than men and given that the attitude of the teacher affects the children, elementary schools are probably doing more to encourage equality of opportunity for girls, than secondary schools.

The hypothesis that elementary and secondary teachers would not score significantly differently on the modified SSRI was supported but with the important qualification that the sex of the teacher, in this case, must be taken into account.

6. Womens' Groups

The womens' groups variable concerned those teachers and students who had been members of womens' support groups or had taken courses in womens' studies. A difference was found between the scores of those teachers and the teachers who had not participated in these activities with the activists scoring higher on the modified SSRI than the others. To find that the participants were less sexist and more knowledgeable was not surprising. An individual who is sufficiently interested in sexism to attend meetings or classes is, one would think, likely to have a positive attitude and a greater knowledge of the issues than one who is not. This study does not, however, indicate whether the groups or meetings themselves actually contribute to the positive attitude and knowledge detected in these subjects.

The hypothesis that those subjects who had attended womens' support groups or womens' studies classes would score higher on the modified SSRI than those who had not, was supported.

7. Board X

Board X was included in this study as, for the past three years, it had been running an affirmative action campaign for women with a central co-ordinator/resource teacher. The details of the campaign and possible improvements will be discussed more fully in the implications section below. This study failed to find any difference

between scores on the modified SSRI, of the teachers from Board X and, the other teachers. This could be due to several factors. The campaign had only been in progress for three years and this may well not be long enough to change attitudes which are well established. The magnitude of the campaign may also explain the results. The amount of exposure to workshops, literature and other affirmative action may have been too small to date, to procure a noticeable change in attitudes and knowledge in the teachers.

These are the two most probable explanations for the results of this study. The possibility must not be ignored, however, that such campaigns simply do not bring about changes of the nature being examined here. It is important to note that the emphasis of the campaign was not specifically attitude change. Board X was concerned, above all, with promotional opportunities for women and aimed to develop a program of activities designed to establish, realize and monitor equal employment opportunities for men and women. (Policy, 1983) The aim was not then, to bring about attitude and knowledge change in the teachers concerning sex role stereotyping. An increased awareness of potential promotion for women does not, by any means, necessarily bring about a general raising of consciousness concerning all aspects of sexism and stereotyping.

The hypothesis that teachers from Board X should score higher on the modified SSRI than the other subjects was not supported.

The Study - Weaknesses

There were some methodological flaws in this study which will be discussed. One was the sampling. The Students in the sample, as was explained, all attended the same faculty of education but lived, and were raised, in many different locations across Canada. The Practitioners on the other hand, were all residents of one city or of the surrounding county and small towns. In all likelihood, these teachers were reasonably typical of Canadian teachers with the possible exception of teachers from totally isolated communities. The subjects in the group would have represented city, small town and rural teachers, and, both those from Public and Catholic Boards. As such, while the two groups were not identical in this respect, the results were probably not greatly altered by the differences.

Another sampling problem was that of empty cells. This term is used to refer to particular categories of subjects where there simply were no respondents. One example of this was male students in the 36 to 40 age range. For this category there were no subjects. It may be that such an individual should have been traced; however, the overall sample (346) was sufficiently large that this empty cell implies that male students of this age are a scarcity and, as such, are not of prime consideration in a study such as this.

Some of the subjects commented that the questionnaire was biased, meaning that it blatantly demanded certain

responses and was not objective. This does not seem to be a valid objection as the same questionnaire was completed by all the subjects. If the instrument had been used simply to show that teachers are sexist (or not), this might have been a reasonable criticism. It was, however, used merely to give relative responses of different groups of people. It was the difference in scores that was of interest, not the absolute scores themselves and, as such, any bias was immaterial.

The instrument had been divided into two sections, attitude and knowledge. While both sections had been shown, by the instruments, designers, to give scores which correlated highly with the final score, it may have been better, in this study to remove the knowledge section. The relationship between knowledge and attitude has not been examined here and, while this duality has probably not affected the scores, the knowledge section could have been erased.

The Study - Strengths

This study had some clear strengths. The first was in the relative simplicity of the instrument allowing for a large number of subjects to respond. Its brevity ensured a high completion rate (only 15 spoiled or incomplete response sheets were received) and that interest was retained for the duration of the process. A second strength was in the nature of the questionnaire in that it had been pretested on a large selection of teachers.

Implications

The main purpose of this study was to try to identify certain characteristics of teachers which appeared to correlate with a tendency to stereotype along sexist lines. The main characteristics under consideration were age and length of time in teaching as the two major groups under scrutiny were B.Ed. students and practising teachers. Other characteristics were also examined - sex, grade level taught and membership in womens' groups. It was hoped that by a systematic examination of characteristics, it might be possible to determine which teachers are likely to be detrimentally affecting children in their classes, either directly or indirectly, as a consequence of the teacher's attitudes. Having established which teachers are most "at risk", programs can then be developed to try to change these teachers' attitudes or to in some other way, prevent possible harmful effects of their attitudes from reaching their students. The teacher characteristics will be examined first, followed by some possible solutions.

Contrary to the major predictions of this study, older, more experienced teachers were less sexist in their attitudes and more knowledgeable about sex role stereotyping than younger and less experienced teachers. This would appear to be a somewhat disheartening finding as one would hope that our young teachers would further the cause of equality rather than return to the attitudes of the past.

However, the undeniable fact remains that these young teachers do not make up a large proportion of working teachers at this time. In fact, of the 55,472 elementary teachers in Ontario in 1982, only 7,470 were aged between 19 and 29, while a huge 27,399 were aged between 30 and 39; 14,444 were aged 40 to 49, and 6,159 were aged 50 or over (figures from Ministry of Education, Ontario, 1982). It seems clear then, that while the younger teachers may be more sexist, the majority of teachers in the elementary schools are actually in the older, more positively orientated, age groups.

In the secondary schools, the same pattern emerges. Of the 32,163 teachers in Ontario secondary schools in 1982, only 2,627 were aged 19 to 29, 13,002 were 30 to 39, 10,786 were 40 to 49 and 6,198 were 50 or over. Overall then, of 88,085 teachers in Ontario in 1982, 10,097 (or 11.46% of the total) were aged 19 to 29, while 40,401 (or 45.86% of the total) were aged 30 to 39. Nearly 90% of the teachers were 30 years old or more. Clearly then, the younger teachers are not making up a major group of teachers in the schools and are not then, having as much of an effect on the students as might have been the case. Nevertheless, the fact remains that as the older teachers move on, these young teachers will eventually come into the schools and bring with them their negative attitudes towards sex role stereotyping. The effects of teachers' attitudes were discussed at length in Chapter 1 and will not be examined again here.

The fact that the more experienced teachers, regardless of age, scored highly on the modified SSRI (implying a positive attitude and high degree of knowledge concerning stereotyping) implies that something about the teaching experience itself promotes these qualities. Again, this could be attributed to more free time for examining issues once the problems inherent in the first few years of teaching are resolved. It could also be that the more students and classes that a teacher has contact with, the greater his or her awareness becomes of the danger of stereotyping. A more experienced teacher may be less inclined to group students in his or her mind and be more likely to think of them and treat them as individuals. It must be noted that the age and years of service findings in this study are contrary to the trends shown in the literature and must, then, be treated with a degree of caution.

The Future - Possible Strategies

Put succinctly, this study found that certain types of teachers have more positive attitudes to sex role stereotyping. These are teachers with 10 or more years experience, teachers over 30, women teachers and those who have been members of womens' support groups or have attended classes in womens' studies. Clearly, teachers who do not fall into these categories cannot simply be removed from the teaching profession - a strategy is needed to help these teachers develop a more positive attitude toward sexism.

The Affirmative Action Campaign of Board X has already been mentioned. This Board has made an effort for the past three years to encourage women to realize their full potential. The Board has held awareness sessions, films, meetings for administrators and workshops on women's issues. Meetings were also held specifically to examine attitudes towards women. An affirmative action newsletter has been published and a representative chosen in each school to ensure that information about the campaign and its activities be readily available to all the teachers. Curriculum kits have been purchased for teachers' use and presentations to students have been done in many classrooms. The main thrust of the campaign has been to appoint a greater number of women to positions of added responsibility than was previously the case. Workshops and other methods have been used to help women become confident and promotion orientated. The emphasis has not, however, been on passing this positive attitude on to female students.

The findings of this study help show exactly which teachers should be the focus of a campaign in Ontario. This campaign, aimed at fostering a positive attitude towards women in general and female students in particular must, it seems, concentrate on young teachers and male teachers. The young teachers should be easier to reach, especially the newly qualifying teachers at faculties of education. The evidence from this study implies that some effort by the training institutions is required to change

the attitudes or promote more positive attitudes in young, potential teachers. Compulsory classes on issues in Education, including the issue of sexism could be made a part of the B.Ed. program. Added to this could be workshops, films and other presentations with strong emphasis on participation, especially by male students. The sessions could aim to show the young teachers the probable effects of their attitudes on their students. Their own attitudes could be measured and discussed with the intention of helping them realize the need to adopt a positive attitude to sex role stereotyping.

A second approach might be to ensure that student teachers, when practise teaching, are assigned to an older, experienced teacher, not a recently qualified one. The associate teacher may consciously or unconsciously pass on his or her positive attitudes to the student teacher during the practise teaching session. As women teachers seem to be less sexist, greater use should be made of women associates, especially for male student teachers to further enhance a positive attitude change in the student teacher.

The use of womens' support groups or study groups is to be encouraged. However, although those who had attended such groups did score higher on the modified SSRI than those who had not, this may well have been due to the nature of the individuals who attended the groups rather than to any effect caused by the group. Attendance at such a group probably needs to be voluntary. As such, a faculty of

education can do no more than to establish such groups and hope that they become popular.

Teachers already in the schools are more difficult to contact than those still in college. Often, such teachers will be exhausted by the end of a day at school and will not be inclined to attend workshops or classes after work. The alternatives are either to take the issue into the schools by use of resource teachers or associate teachers or to free the teachers during school time to attend such sessions as may be provided by the board. Naturally, this is never a popular alternative for school boards or principals, but it does ensure a high participation role in provided activities. Newsletters, resources and information sheets can also be circulated in the schools in an attempt to raise awareness, especially in young and male teachers. If student teachers are prone to sex role stereotyping, an effort could be made in universities and high schools, from which these young teachers have graduated, to provide a positive attitude to women using the same methods as those to be used in faculties of education.

Clearly, there are many possible ways in which to try to change teachers' attitudes to provide a positive attitude to sexism and women. This study has tried to highlight areas in which attention should be focused and on the basis of such information, strategies may be formed and implemented.

Further Research

There are two easily identifiable directions for further

research. The first is to continue to identify demographic variables which appear to determine which teachers will show a positive attitude toward both their male and female students, and, which will not. Two variables which were included in the data for this study but not analyzed were the number of children (if any) parented by the teachers. Another was the subject taught (or to be taught) by the teacher or student teacher. These variables were not examined as the data for the present study was becoming unmanageable and as the focus of this study was the age of the teachers, it was not considered essential. The categories provided for teaching subjects were:

- A - Science or math.
- B - Arts, humanities, english, geography, languages, music, etc.
- C - Physical education
- D - Elementary subjects
- E - Counselling

It would also be very interesting to examine the race, colour or religion of the teachers. Are Catholic Board teachers, for example, more or less sexist than Public School Board teachers? Do white teachers have more sexist attitudes than black teachers? Similarly, other geographical areas could be examined. The attitudes of teachers in Western Canada may differ from those in Ontario, and those of the teachers in the far north may differ again. Teachers in England may also be different from those in Canada and such cross cultural studies may prove very interesting.

A second approach to further research might be to look

at aspects of stereotyping other than attitude. In this study, knowledge was included with attitude but further research might reveal an interesting relationship between these two. Similarly, the relationship between attitudes to sex role stereotyping and sex role stereotyped behaviour in the classroom could be the focus of a great deal more research.

Summary and Conclusion

The aim of this study was to ascertain whether newly qualified teachers are less likely to stereotype along sexist lines and are more knowledgeable about sexism than older, experienced teachers. Contrary to the researchers' expectations, this was not found to be the case. It was concluded, therefore, that despite the fact that very few young teachers are currently gaining employment in Ontario schools, and attempts must be made to alter this situation. The schools cannot hope to encourage equality between the sexes in the students if the young teachers themselves are not committed to the notion. A real effort must be made by the faculties of education and the school boards if there is to be any chance of change in the near future.

APPENDIX 1

THE MODIFIED SSRI

1. It's natural to attach more power and prestige to the male role.
2. Textbooks give a distorted view of the working world of women.
3. Women have been given equal opportunity to achieve.
4. Girls should be taught to fulfill passive and supportive roles.
5. Father should be the boss-manager of family and the final "court of appeals".
6. It's ok for boys to play with dolls.
7. Women are not meant to be electricians, sheet metal workers, or truck drivers.
8. I'd buy my daughter a tool kit.
9. A girl's education should chiefly be a preparation for marriage and child rearing.
10. Husbands should make the major decisions.
11. Men, more than women, should be encouraged to be objective and make decisions.
12. When there are classroom jobs to be given out, boys should move the chairs and girls should water the plants.
13. A boy has to be tough.
14. Male students should be encouraged to be more independent, active, and assertive than female students.
15. Boys, more than girls, have to learn to take care of themselves.

16. A withdrawn boy is a more serious problem than a withdrawn girl.
17. It's worse for a woman than for a man to get drunk, swear, etc.
18. Female students, more than male students, should be rewarded for being passive and gentle.
19. I could not respect a man if he decided to stay at home and take care of his children while his wife worked.
20. A woman should be as free as a man to propose marriage.
21. Girls are more serious than boys.
22. Girls begin school as better achievers than boys, but fall behind as they become socialized.
23. School does little to reinforce the differences between men and women.
24. Women are not encouraged to be successful leaders.
25. Schools encourage boys, more than girls to do well in science.
26. Books do not contribute to a child's learning of sex roles.
27. Children learn sex role behaviour by observing what goes on in the world around them.
28. Encouraging girls to be passive may prevent them from becoming intellectual and creative.
29. Young children view school as a feminine place.
30. Women are emotionally more unstable than men.
31. Teachers give boys more praise, instructions, and more encouragement to be creative.
32. At an early age, children learn that women are the housekeepers and men are the wage earners.

33. Women are not encouraged to be successful in academic areas.
34. A boy's biological makeup has little to do with his greater aggressiveness.
35. Daughters of working mothers view women less negatively.
36. Girls are not motivated to achieve mainly because they do not think very highly of themselves.
37. Most teachers view and treat the girls in their class in a different way from the boys.

APPENDIX 2

THE DEMOGRAPHIC DATA QUESTIONNAIRE

1. What age are you?
A- 20-25
B- 26-30
C- 31-35
D- 36-40
E- over 40
2. Are you?
A- Female
B- Male
3. How many years, if any, have you been teaching?
A- 0 (for the B.Ed. students)
B- 1-5
C- 6-10
D- 11-15
E- over 15
4. What is your main teaching subject (for B.Ed.'s indicate the subject you wish to teach.) Choose one only.
A- Science or math.
B- Arts, humanities, english, geography, languages, music, etc.
C- Physical education.
D- Elementary subjects.
E- Counselling.
5. What grade level do you teach (B.Ed.'s indicate intended level). Choose one.
A- K to 7
B- 8 to 13
6. What Board do you work for?
A- Windsor Public
B- Windsor Separate
C- Essex Public
D- Essex Separate
E- Other (B. Ed.'s students mark here)
7. How many children do you have (as a parent)?
A- 1
B- 2
C- 3
D- More than 3
E- None

8. Have you ever been in any women's studies courses
or women's support groups?

A- Yes

B- No

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VITA AUCTORIS

LAURA ELIZABETH MARKS

EDUCATIONAL BACKGROUND:

University of Windsor
Windsor, Ontario, Canada

Master of Education 1984
- Curriculum and Instruction

University of London
Institute of Education
London, England

Post Graduate Certificate of
Education 1982 - Primary

University of London
University College
London, England

Bachelor of Science (Honors)
1981 - Psychology

Haberdasher's Askes'
School for Girls
Elstree, Herts., England

'A' levels, English, History,
French 1978

ACADEMIC AWARDS:

Commonwealth Scholarship 1983